

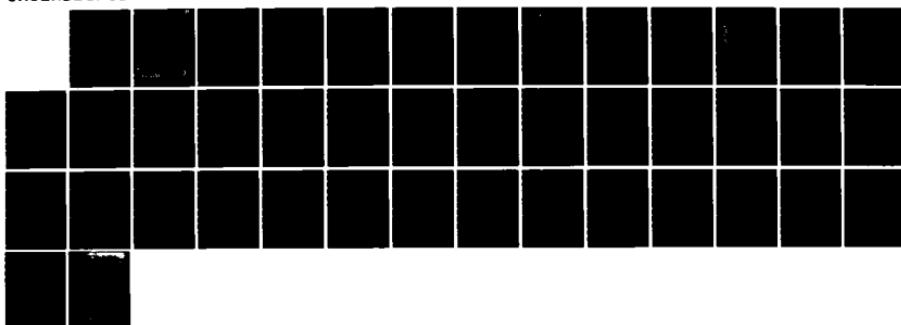
AD-A146 547 193168 MLRS MISSILE NUMBER Y6171 Y6172 ROUND NUMBER
Y633/AT2-84 Y634/AT2- (U) ARMY ELECTRONICS RESEARCH
AND DEVELOPMENT COMMAND WSMR NM ATM. D C KELLER

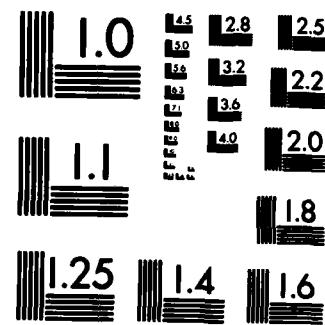
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AERONAUTIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES AIR FORCE ELECTRONICS COMMAND

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OCT 10 1984
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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19316B MLRS, Missile Number V6171, V6172, Round Number V633/AT2-84 and V634/AT2-85 are presented in tabular form.		

CONTENTS

	PAGE
INTRODUCTION -----	1
DISCUSSION -----	1
GENERAL AREA MAP -----	2
LAUNCH AREA DIAGRAM -----	3
TABLES:	
1. Surface Observations Taken at NW-30 at 1415 and 1513 MDT -----	4
2. Anemometer Measured Wind Data at 30 ft. AGL -----	5
3. Anemometer Measured Wind Data at 60 ft. AGL -----	6
4. Anemometer Measured Wind Data at 90 ft. AGL -----	7
5. Launch and Impact Area Pilot-Balloon Measured Wind Data at 1st T-Time	8
6. Launch and Impact Area Pilot-Balloon Measured Wind Data at 2nd T-Time	9
7. Amining and T-Time Computer Met Message Data -----	10
8. WSD Significant Level Data at 0845 MDT -----	11
9. WSD Upper Air Data at 0845 MDT -----	13
10. WSD Mandatory Levels at 0845 MDT -----	19
11. NW-30 Significant Level Data at 1130 MDT -----	20
12. NW-30 Upper Air Data at 1130 MDT -----	21
13. NW-30 Mandatory Levels at 1130 MDT -----	25
14. Jallen Significant Level Data at 1211 MDT -----	26
15. Jallen Upper Air Data at 1211 MDT -----	27
16. Jallen Mandatory Levels at 1211 MDT -----	31
17. Jallen Significant Level Data at 1444 MDT -----	32
18. Jallen Upper Air Data at 1444 MDT -----	33
19. Jallen Mandatory Levels at 1444 MDT -----	37

INTRODUCTION

19316B MLRS, Missile Numbers V6171 and V6172, Round Numbers V633/AT2-84 and V634/AT2-85 were launched from Brillo, White Sands Missile Range (WSMR), New Mexico, at 1443:34 and 1513:08 MDT 30 Jul 80. The scheduled launch times were 1415 and 1445 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico.

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the NW-30 Met Site at T-0 Minutes.

(2) Anemometer data were provided from existing tower-mounted anemometers at Brillo. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Pilot-balloon observations at:

SITE AND ALTITUDE

D3½ 500 meters
Dead Horse 950 meters

(2) Air structure data (rawinsonde were collected at the following Met Sites.

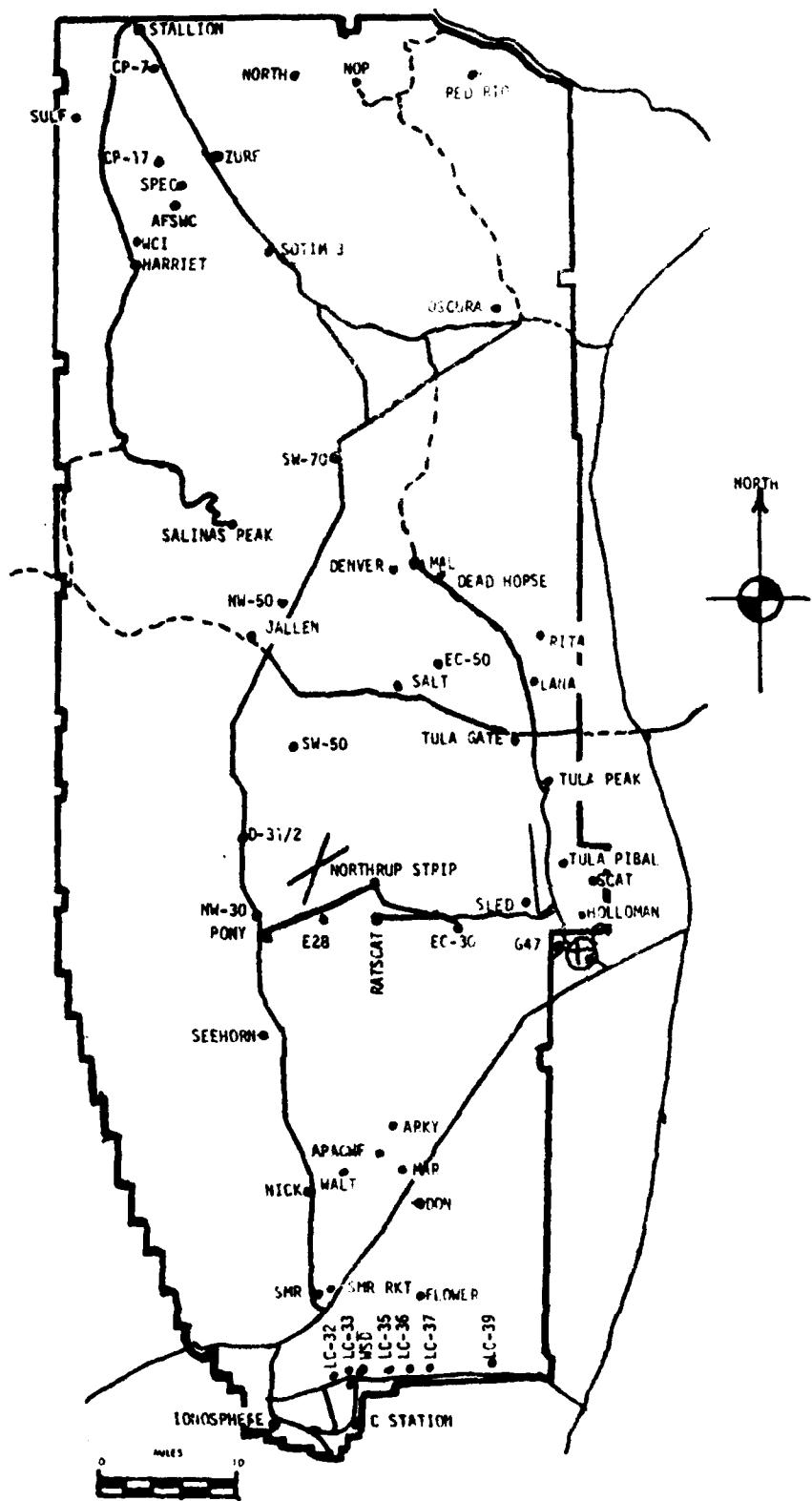
SITE AND TIME

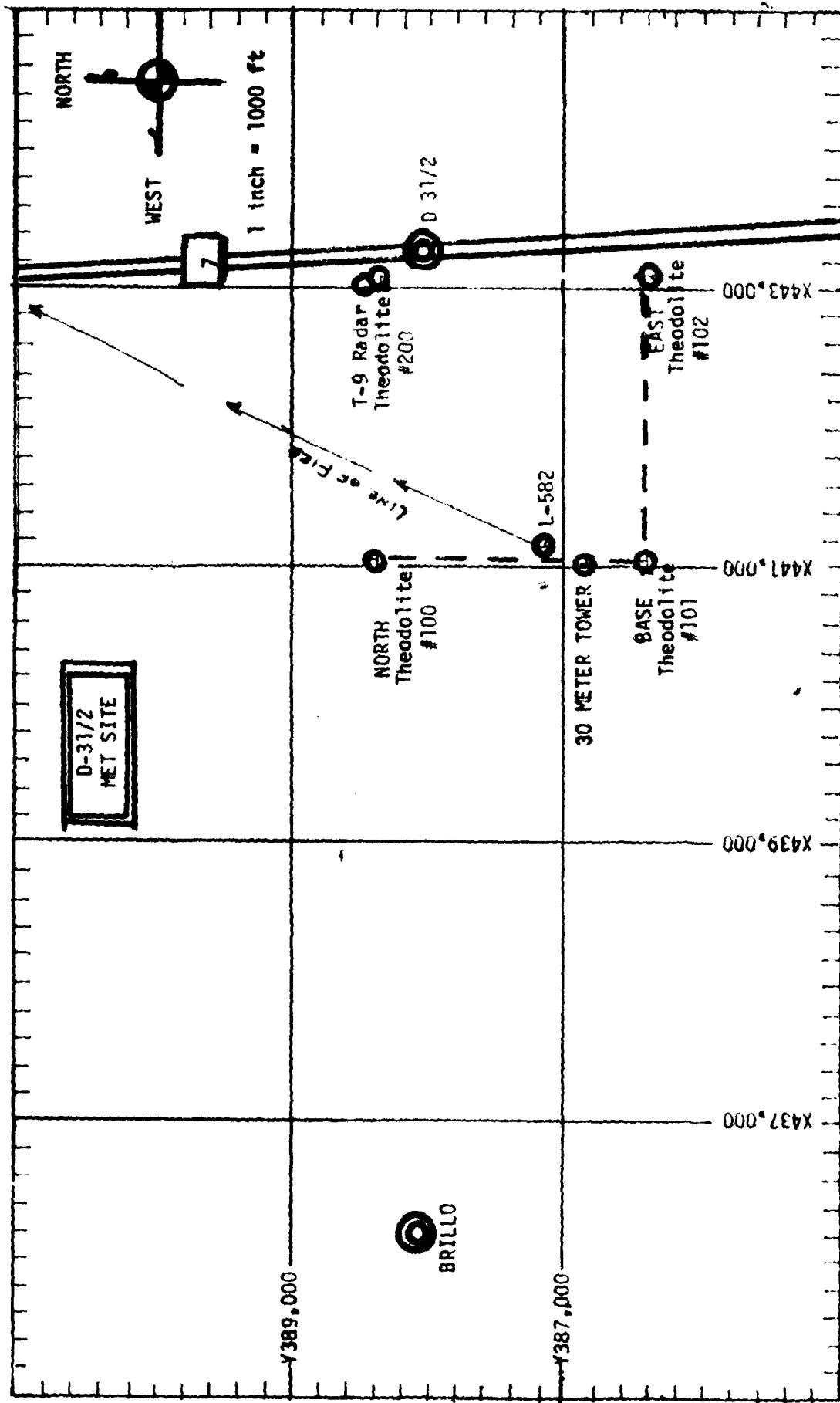
WSD 0845 MDT
NW-30 1130 MDT
JALLEN 1211 MDT
JALLEN 1444 MDT



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DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/ _____	
Availability Codes _____	
Dist	Avail and/or Special
A-1	

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

TABLE 1

DATE	DAY	MONTH	YEAR
30	07	84	
TIME	PRESSURE mbs	TEMPERATURE OF °C	DEW POINT OF °C

M D T				RELATIVE HUMIDITY %	SENSITIVITY gm/m	DIRECTION deg	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
1415	880.2	32.8	7.2	20		090	10		40
1513	880.0	33.6	9.4	23		080	04		40

OBSTRUCTIONS TO VISIBILITY	CLOUDS			REMARKS		
	1st LAYER AMT	TYPE	2nd LAYER AMT	TYPE	3rd LAYER AMT	TYPE
	3	CU	6000	0	AC	12000
	3	CU	6000	0	AC	12000

PSYCHROMETRIC COMPUTATION

TIME: MDT	1415	1513
DRY BULB TEMP.	32.8	33.6
WET BULB TEMP.	17.2	18.0
WET BULB DEPR.	15.6	15.6
DEW POINT	7.2	9.4
RELATIVE HUMID.	20	23

TABLE 2

ANEMOMETER DATA - 30 Ft Level of 30 Meter Tower
X= 461,016.71 Y= 386,849.19 H= 4004.80 (BASE)

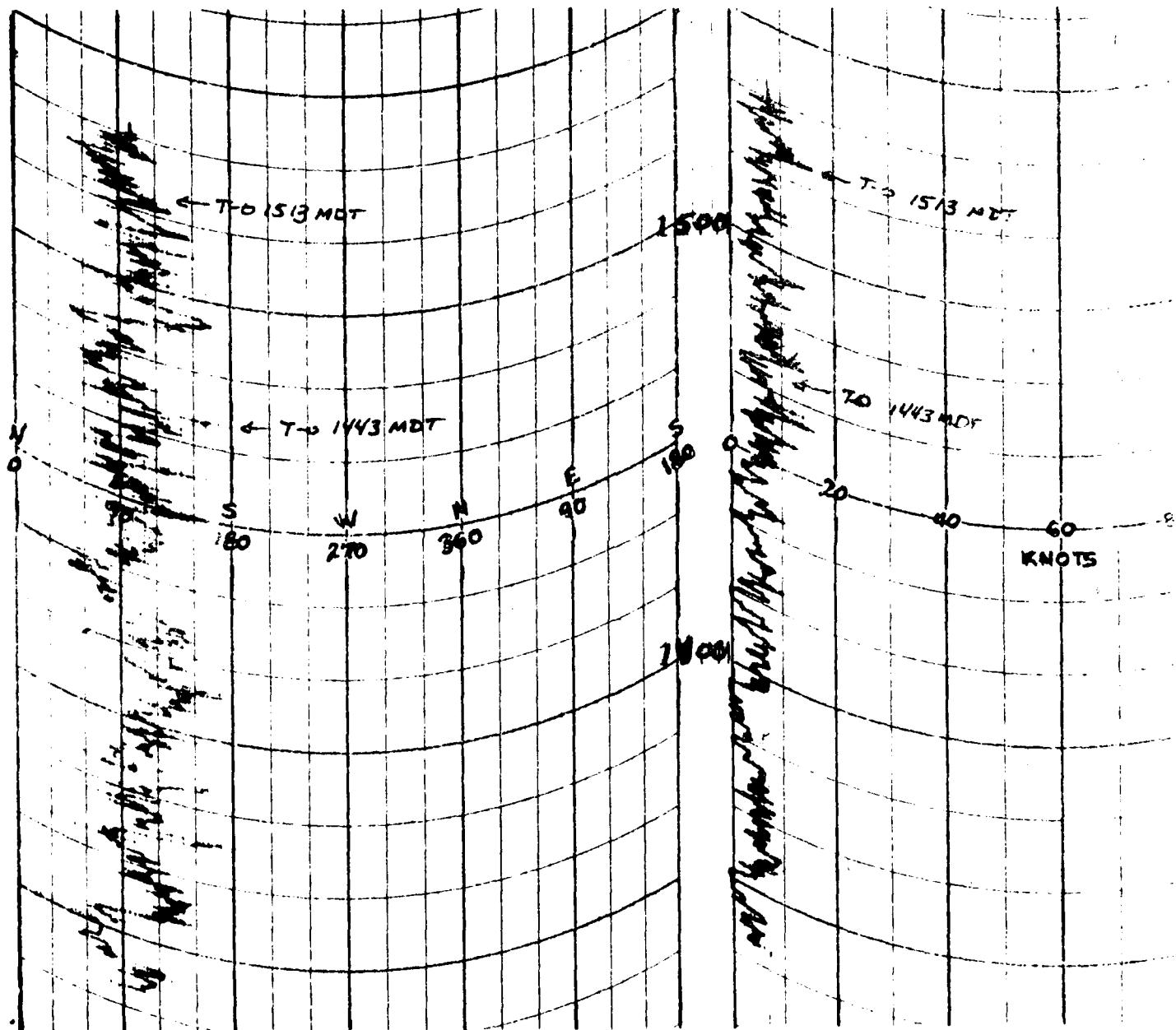


TABLE 3

ANEMOMETER DATA - 60 Ft Level of 30 Meter Tower

X= 441,018.71 Y= 386,849.19 H= 4004.60 (BASE)

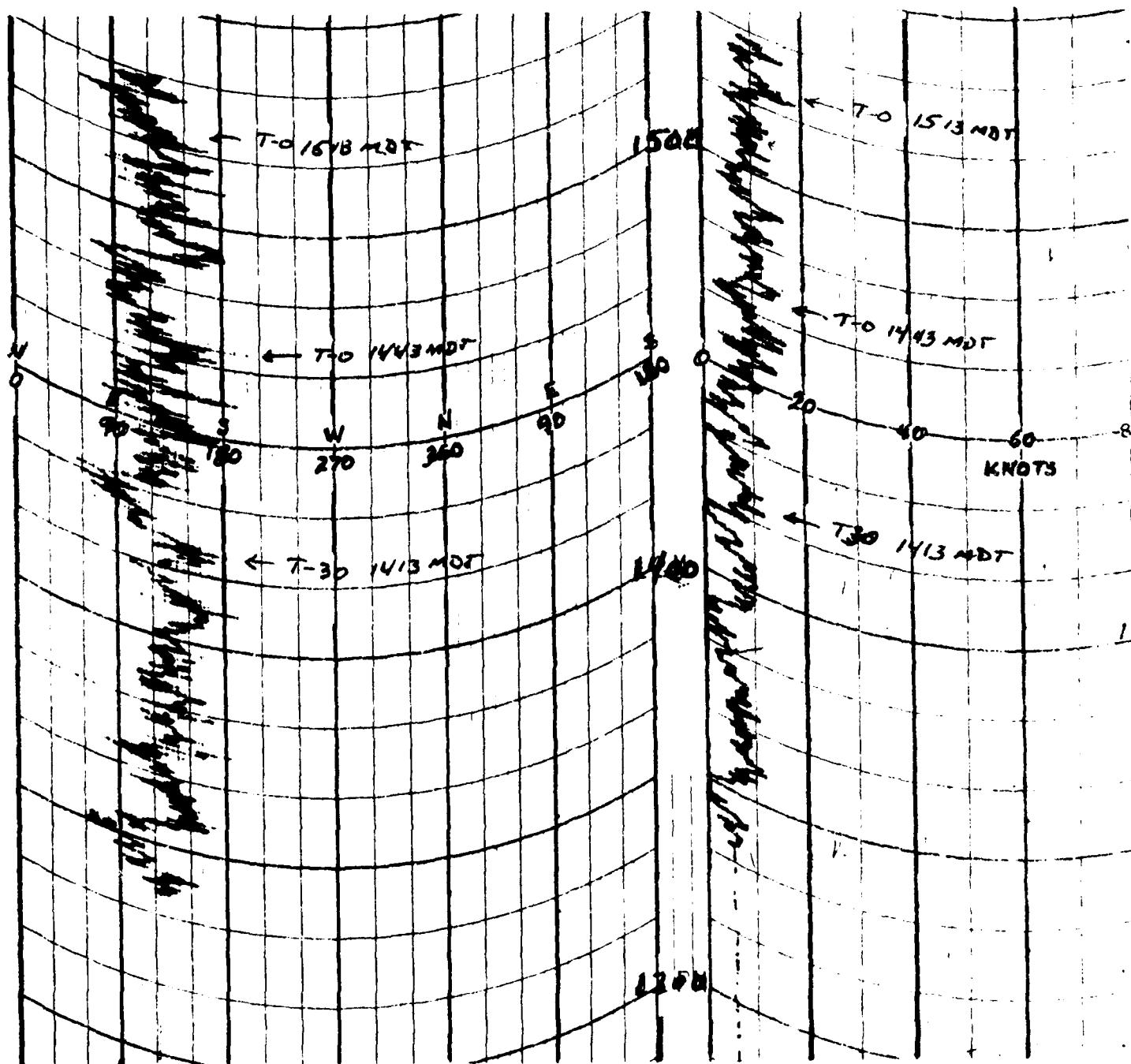


TABLE 4

ANEMOMETER DATA - 90 Ft Level of 30 Meter Tower
X= 441,018.71 Y= 386,849.19 H= 4004.80 (BASE)

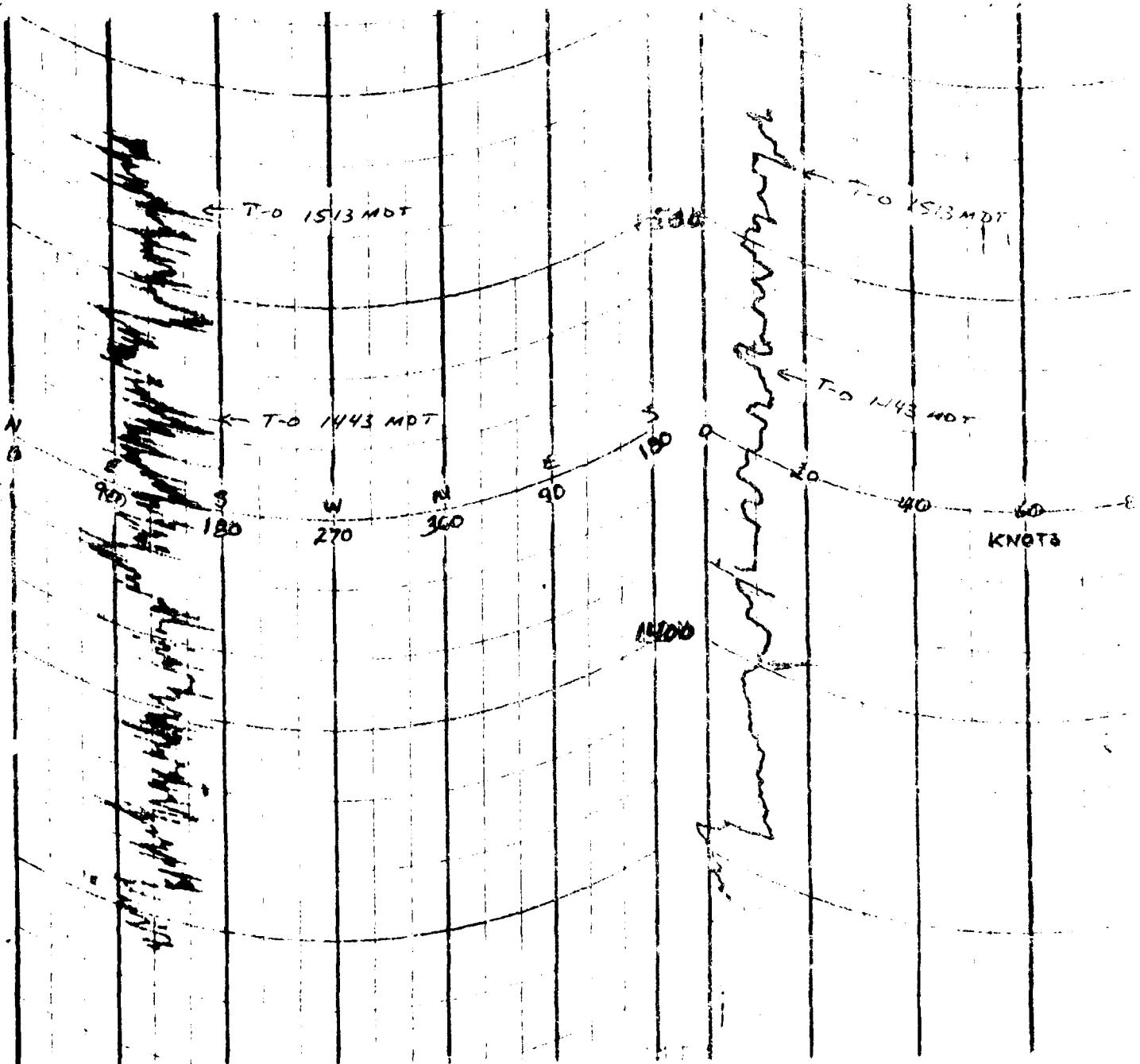


TABLE 5

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 30 July 1984

SITE: 031

TIME: 1445 MDT

WSTM COORDINATES:

X= 441,072.67

Y= 386,316.94

H= 4,008.31

SITE: Deadhorse

TIME 1444 MDT

WSTM COORDINATES:

X= 5:9,932.11

Y= 490,249.63

H= 4,133.12

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	150	04
150	093	11
210	094	10
270	095	08
330	100	07
390	107	07
500	111	06
650		
850		
950		
1150		
1350		
1550		
1750		
2000		

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	160	05
150	200	05
210	220	05
270	220	04
330	220	04
390	330	02
500	180	05
650	170	10
850	170	12
950	170	13
1150	160	18
1350	170	03
1550		
1750		
2000		

Data obtained from Double Theodolite Tracked Pilot-Balloon Observations.

TABLE 6

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 30 July 1984

SITE: D31
 TIME: 1514 MDT
 WSTM COORDINATES:
 X= 441,092.67
 Y= 386,316.94
 H= 4,008.31

SITE: Deadhorse
 TIME 1515 MDT
 WSTM COORDINATES:
 X= 519,982.11
 Y= 490,249.23
 H= 4,133.12

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	150	03
150	104	13
210	105	12
270	108	10
330	110	08
390	106	06
500	111	05
650		
800		
950		
1150		
1350		
1550		
1750		
2000		

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	150	05
150	160	05
210	150	06
270	150	06
330	160	06
390	170	05
500	160	07
650	170	04
800	190	03
950	220	02
1150		
1350		
1550		
1750		
2000		

Data obtained from Double Theodolite Tracked Pilot-Balloon Observations

TABLE 7

AIMING AND T-TIME COMPUTER MET MESSAGE DATA

30 July 1984

WSD 0845 MDT	NW-30 1130 MDT	JALLEN 1211 MDT	JALLEN 1444 MDT
METCM1324064	METCM1329065	METCM1332065	METCM1332065
301480122884	301750123883	301820124880	302070124878
00000000 29870884	00107001 30350883	00391005 30710880	00373010 30950878
01300005 29710873	01204001 30110873	01274007 30450870	01296013 30560869
02323011 29520849	02126004 29810849	02313005 30130845	02281005 30320845
03336011 29330810	03367002 29510811	03290006 29710808	03241006 29900807
04270009 28960764	04438004 29120765	04124001 29200763	04225006 29400762
05202006 28670720	05391002 28680721	05627005 28720719	05188004 28920719
06148008 28100678	06167006 28300679	06225004 28320678	06189003 28440677
07214007 27710638	07226008 27890639	07300007 27870638	07300005 27970638
08197012 27440600	08223014 27460601	08255011 27420600	08308005 27540600
09210016 27020563	09237016 27130565	09258012 27100563	09219007 27220563
10235011 26870529	10309008 26980530	10347006 26910529	10190003 26910529
11260003 26790496	11530005 26880498	11004005 26830496	11096008 26720497
12170002 26150451	12079007 26420452	12065010 26300451	12081009 26290451
13132004 25570395	13115006 25650397	13101008 25560395	13079006 25560395
14111008 24630345	14149005 24920347	14123007 24820345	14020003 24790345
15159008 24140300	15086003 24150302	15081003 24040300	15030005 24020300
16181013 22990260	16188011 23320261	16197008 23240260	16146005 23260260
17185011 22300223	17198013 22560225	17199011 22460224	17143014 22480224
18157013 21490191	18180016 21780193	18191019 21670192	18139018 21640192
19161020 20820163	19184021 20950165	19160018 20940164	19134013 20890164
20207007 20280138	20121002 20480140	20082008 20380139	20618009 20500139
21041014 20280117	21068016 20540119	21077018 20410118	21096019 20270118
22144013 20480099	22168010 20610101	22160010 20540100	22138010 20510100
23150016 20690084	23125017 20940085	23114016 20720085	23114017 20730085
24144019 21190071	24180020 21190073	24179023 21040072	24178013 21060072
25134017 21290061	25160018 21370062	25152018 21370061	25164020 21330061
26155030 21350052	26164028 21570053	26157025 21730052	26166026 21540052

STATION ALTITUDE 3989.72 FEET MSL
20 JULY 84
ASCENSION NO. 325 0845 MDT

SIGNIFICANT LEVEL DATA

2123223395
WHITE SANDS
52.40043 LAT DLT
106.37933 LON DLT

TABLE 8

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL-HUM. PERCENT	
			23.7	50.0
882.5	3989.0	23.7	12.7	50.0
874.9	4259.7	23.0	12.0	50.0
950.0	5094.2	21.0	10.2	50.0
795.7	6964.7	18.5	5.3	64.0
726.6	9500.1	12.3	5.5	63.0
700.0	10525.5	10.4	1.8	55.0
668.5	11755.8	7.0	-7	58.0
594.4	14472.7	-1	-2.0	86.0
584.0	15376.8	-1.0	-7.3	62.0
577.1	15698.3	-2.2	-5.5	72.0
562.2	16348.4	-2.7	-8.0	67.0
554.9	16246.5	-2.5	-5.0	65.0
558.0	16557.0	-3.0	-7.8	62.0
543.2	17255.4	-3.9	-15.7	36.0
511.2	17844.8	-4.4	-17.2	36.0
513.0	18407.4	-3.9	-21.0	21.0
490.0	19414.1	-4.5	-25.5	16.0
497.9	19523.2	-4.2	-25.2	16.0
476.9	22341.5	-6.2	-27.2	17.0
457.7	25072.3	-16.2	-32.4	24.0
427.9	26475.9	-12.7	-35.5	23.0
460.5	31965.4	-32.5	-46.5	23.0
374.1	34335.8	-38.6	-50.8	26.0
251.0	36099.5	-63.5		
720.5	40923.1	-54.3		
126.3	44654.9	-64.2		
130.0	46736.4	-68.6		
146.9	47467.9	-69.7		
141.1	47921.6	-68.6		
116.9	52392.0	-70.2		
128.4	51111.1	-68.4		
137.9	52275.2	-69.9		
130.0	54758.8	-59.9		
26.9	67055.6	-60.3		
73.5	51994.2	-59.9		
67.0	62970.0	-58.6		
64.4	61434.2	-60.4		
57.0	58968.9	-57.1		
43.9	71699.3	-55.6		
72.5	74625.4	-51.3		

STATION ALTITUDE 12,200 FEET MSL
1 JULY 1961 0845 MDT
ASCENSION NO. 1

SIGNIFICANT LEVEL DATA

41032365
WHITI SANDS
32.43043 LAT DEG
106.37033 LON DEG

TABLE 8 Cont'd

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREE	DEGREE CENTIGRADE	
30.0	79520.9	-53.6		
29.0	58626.0	-44.7		
28.0	47730.1	-39.1		
27.0	104254.2	-36.8		
26.4	105672.0	-36.9		

STATION ALTITUDE 3959.7 FEET MSL
22 JULY 86 0845 MDT
ASCENSION NO. 526

UPPER AIR DATA
C120501465
WHITE SANDS

GEODETIC COORDINATES
32.40063 LAT DEG
106.17033 LONG DEG

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT CENTIGRADE	REL. HUM. PERCENT	SPEED OF CUBIC SOUND KNOTS	DIRECTION DEGREES(CIN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
2959.0	653.5	23.7	12.7	50.0	1030.3	673.3	0.0	1.000293
4000.0	693.2	23.7	12.2	50.3	1030.3	673.3	1.1	1.000293
4500.0	657.9	22.4	11.5	50.0	1016.8	671.5	1.1	1.000296
5000.0	652.8	21.2	10.4	50.0	1027.6	673.3	1.1	1.000279
5500.0	537.9	23.5	2.6	48.7	988.7	659.4	1.1	1.000272
6000.0	623.2	19.7	5.3	47.1	971.6	658.5	1.1	1.000265
6500.0	658.9	19.5	7.2	45.5	958.8	657.9	1.1	1.000259
7000.0	796.7	19.7	6.3	44.3	944.2	667.1	1.1	1.000253
7500.0	730.6	17.4	6.3	48.0	931.5	665.6	1.1	1.000251
8000.0	755.7	16.1	6.2	51.8	918.9	664.2	1.1	1.000246
8500.0	753.1	14.9	6.0	55.5	906.6	662.7	1.1	1.000245
9000.0	739.7	13.6	5.8	59.3	894.5	561.2	1.1	1.000242
9500.0	725.6	12.3	5.5	63.0	882.6	659.8	1.1	1.000234
10000.0	713.5	11.4	3.7	59.1	869.9	658.5	1.1	1.000231
10500.0	703.7	10.4	1.9	55.2	857.6	657.3	1.1	1.000224
11000.0	697.9	9.4	1.6	56.1	846.0	655.7	1.1	1.000219
11500.0	675.4	7.7	-1.2	57.4	834.8	654.2	1.1	1.000215
12000.0	653.0	6.4	-1.7	60.4	923.4	652.5	1.1	1.000212
12500.0	650.7	5.1	-1.8	65.6	911.8	651.0	1.1	1.000209
13000.0	638.6	3.9	-1.5	70.8	900.5	649.5	1.1	1.000207
13500.0	626.8	2.6	-1.2	75.9	789.3	648.3	1.1	1.000204
14000.0	615.2	1.1	-1.6	81.1	778.2	646.5	1.1	1.000201
14500.0	603.6	0.1	-2.1	85.3	762.3	645.0	1.1	1.000198
15000.0	592.6	-0.5	-5.0	72.0	755.0	644.1	1.1	1.000195
15500.0	581.7	-1.6	-7.0	65.0	743.6	642.9	1.1	1.000194
16000.0	570.8	-2.6	-7.8	67.7	732.7	641.5	1.1	1.000191
16500.0	552.4	-3.2	-9.4	62.6	720.8	643.5	1.1	1.000176
17000.0	543.8	-3.8	-13.7	45.9	708.7	639.9	1.1	1.000169
17500.0	538.1	-4.1	-16.9	36.0	596.2	539.6	1.1	1.000164
18000.0	529.0	-4.3	-16.3	32.4	683.4	639.1	1.1	1.000160
18500.0	517.9	-3.9	-23.5	21.0	669.7	639.5	1.1	1.000157
19000.0	525.4	-4.2	-24.8	18.5	657.7	639.1	1.1	1.000154
19500.0	498.0	-4.5	-26.3	16.0	645.3	639.0	1.1	1.000147
20000.0	485.4	-5.1	-26.6	16.4	534.8	626.1	1.1	1.000145
20500.0	479.4	-5.9	-27.1	15.9	624.7	637.0	1.1	1.000143
21000.0	472.1	-7.0	-27.5	17.5	615.1	635.7	1.1	1.000140
21500.0	455.9	-8.2	-26.1	15.4	605.7	634.2	1.1	1.000136
22000.0	451.4	-9.4	-26.6	19.1	596.5	632.8	1.1	1.000134
22500.0	442.0	-10.6	-29.1	13.9	587.5	631.4	1.1	1.000132
23000.0	434.2	-11.8	-29.4	29.7	578.5	630.5	1.1	1.000132

STATION ALTITUDE 3999.0 FEET
30 JULY 56 08:55 MDT
ASCENSION NO. 324

UPPER AIR DATA

211525Z96

WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.17033 LON DEG

TABLE 9 Cont'd

GEODETIC ALTITUDE MSL FEET	PRESSURE WILLIAMS DEGREES CENTIGRADI	TEMPERATURE AIR DE-POINT PERCENT WATER	REL-HUM. PERCENT	DENSITY G/CUBIC METER	SPED. S. KNOTS	DIRECTION DEGREES (IN) WIND DATA	SPEED KNOTS	INDEX OF REFRACTION
23500.0	425.7	-13.0	-10.4	21.5	569.8	628.5	88.4	4.1
24000.0	417.4	-14.2	-31.0	22.3	561.2	527.1	82.5	3.9
24500.0	409.2	-15.3	-31.7	23.1	552.7	625.5	77.6	3.5
25000.0	401.1	-16.5	-32.1	23.7	544.6	524.2	72.9	3.8
25500.0	392.1	-17.6	-33.4	23.7	535.7	622.9	69.2	4.1
26000.0	385.2	-18.7	-34.4	23.5	527.2	621.5	64.7	4.5
26500.0	377.4	-19.8	-35.5	23.5	518.7	620.2	67.5	5.1
27000.0	369.5	-20.9	-36.5	23.9	510.3	618.8	67.0	6.0
27500.0	351.9	-22.1	-37.5	23.5	502.3	617.6	65.1	7.0
28000.0	354.4	-23.3	-38.5	23.0	493.9	615.9	62.2	7.9
28500.0	347.0	-24.4	-39.5	23.0	495.9	614.5	61.2	8.4
29000.0	339.8	-25.6	-40.5	23.6	478.1	613.3	61.7	8.1
29500.0	332.8	-26.7	-41.5	23.0	470.4	611.6	63.2	9.2
30000.0	325.9	-27.9	-42.5	23.0	462.6	610.1	66.1	7.3
30500.0	319.1	-29.1	-43.5	23.0	455.4	678.7	69.3	6.2
31000.0	312.5	-30.2	-44.6	23.0	448.0	607.2	72.4	6.1
31500.0	305.9	-31.4	-45.6	23.0	440.9	605.8	73.5	6.5
32000.0	299.6	-32.6	-46.5	23.0	433.8	594.3	54.4	7.5
32500.0	293.1	-34.1	-47.6	23.8	427.1	624.6	97.1	6.8
33000.0	286.5	-35.5	-48.6	24.5	420.5	600.6	99.1	18.4
33500.0	280.0	-37.0	-49.4	25.2	414.7	598.7	102.8	11.8
34000.0	273.4	-38.5	-50.7	25.9	407.6	596.8	104.4	12.2
34500.0	268.5	-39.7	-53.9	20.2**	400.7	595.3	107.1	11.4
35000.0	262.0	-40.1	-57.9	13.5**	391.8	593.7	104.8	13.1
35500.0	256.4	-42.3	-63.5	7.6**	382.1	592.2	90.3	12.1
36000.0	251.1	-43.3	-75.6	1.3**	380.5	590.7	87.1	13.1
36500.0	246.4	-44.6	-60.2	-57.9	391.8	589.2	79.7	12.4
37000.0	242.8	-45.7	-60.2	-57.9	362.1	587.7	132.2	14.9
37500.0	239.1	-46.8	-62.3	-62.3	360.0	586.1	137.2	12.7
38000.0	235.7	-47.9	-63.4	-63.4	356.2	584.6	139.5	9.3
38500.0	232.4	-48.9	-64.4	-64.4	347.9	583.1	136.4	13.0
39000.0	229.1	-49.9	-65.5	-65.5	341.7	581.6	136.1	9.4
39500.0	225.7	-51.1	-65.6	-65.6	329.7	580.2	140.4	10.8
40000.0	222.4	-52.2	-66.7	-66.7	329.7	575.1	193.6	12.7
40500.0	219.1	-53.3	-67.8	-67.8	323.9	577.3	96.1	10.4
41000.0	215.7	-54.4	-68.9	-68.9	318.2	575.6	96.1	11.7
41500.0	212.4	-55.5	-69.9	-69.9	312.4	573.7	84.1	13.1
42000.0	209.1	-56.6	-70.9	-70.9	306.7	572.1	64.1	14.4
42500.0	205.7	-57.6	-71.9	-71.9	301.1	570.4	55.8	15.7
43000.0	202.4	-58.6	-72.9	-72.9	295.6	546.7	87.1	16.1

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER ALTAIR CATA

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE WILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	WIND DATA			INDEX OF REFRACTION
					DE-POINT KNOTS	SPEED OF SOUND KNOTS	DIRECTION DEGREES(CN)	
43500.0	176.5	-61.5	290.2	557.3	16.4	1.000065	1.000053	
44500.0	172.3	-52.6	285.0	555.4	89.1	1.000063	1.000052	
44520.0	156.2	-53.5	279.8	553.7	89.7	1.000062	1.000052	
45000.0	156.0	-64.9	276.4	562.2	89.7	1.000061	1.000051	
45500.0	150.0	-55.9	269.0	560.8	90.5	1.000060	1.000050	
46000.0	155.0	-57.5	253.6	559.4	91.9	1.000059	1.000049	
46500.0	152.2	-58.0	258.4	558.0	91.0	1.000058	1.000048	
47000.0	148.4	-68.9	253.1	556.7	98.5	1.000056	1.000046	
47500.0	144.7	-69.6	247.6	555.8	104.5	1.000055	1.000045	
48000.0	141.0	-56.6	240.2	557.2	118.4	1.000053	1.000044	
48500.0	137.5	-68.9	234.6	556.7	154.6	1.000052	1.000043	
49000.0	136.1	-69.3	229.1	556.3	213.6	1.000051	1.000042	
49500.0	132.7	-69.5	223.7	555.8	251.0	1.000050	1.000041	
50000.0	127.4	-69.9	218.4	555.4	281.1	1.000049	1.000040	
50500.0	124.2	-70.0	213.0	555.3	305.0	1.000047	1.000039	
51000.0	121.1	-69.1	206.6	556.5	349.7	1.000046	1.000038	
51500.0	118.1	-53.5	201.0	557.4	12.9	1.000045	1.000037	
52000.0	115.1	-59.9	196.3	556.8	31.1	1.000044	1.000036	
52500.0	112.2	-69.3	191.8	556.3	44.3	1.000043	1.000035	
53000.0	109.4	-69.7	187.3	555.7	55.8	1.000042	1.000034	
53500.0	106.7	-69.9	182.8	555.6	66.5	1.000041	1.000033	
54000.0	104.0	-69.9	178.2	555.6	72.6	1.000040	1.000032	
54500.0	101.4	-69.6	173.8	555.4	80.3	1.000039	1.000031	
55000.0	98.9	-69.5	169.1	556.3	87.1	1.000038	1.000030	
55500.0	95.4	-65.5	164.2	557.3	92.4	1.000037	1.000029	
56000.0	94.1	-67.6	159.4	556.5	89.1	1.000036	1.000028	
56500.0	91.8	-66.7	154.8	559.8	84.7	1.000035	1.000027	
57000.0	89.5	-65.7	150.3	561.1	78.2	1.000033	1.000026	
57500.0	87.3	-54.8	146.0	562.6	74.4	1.000032	1.000025	
58000.0	85.2	-53.8	141.8	563.5	79.7	1.000031	1.000024	
58500.0	83.1	-52.9	137.7	564.7	82.1	1.000030	1.000023	
59000.0	81.0	-52.0	133.7	566.1	96.7	1.000029	1.000022	
59500.0	79.1	-61.0	129.8	557.4	90.4	1.000028	1.000021	
60000.0	77.1	-50.1	126.1	558.5	92.7	1.000027	1.000020	
60500.0	75.1	-50.0	123.0	558.8	94.7	1.000026	1.000019	
61000.0	73.5	-60.0	120.3	568.9	92.3	1.000025	1.000018	
61500.0	71.7	-52.4	117.1	558.7	90.3	1.000024	1.000017	
62000.0	70.2	-59.4	114.1	568.9	87.4	1.000023	1.000016	
62500.0	59.1	-59.3	111.3	559.7	81.9	1.000022	1.000015	
63000.0	58.7	-59.1	108.5	570.3	75.4	1.000021	1.000014	

61043111 0004011415
32.44343 1A1 016
106.0 70333 10N 036

61043111 0004011415
32.44343 1A1 016
106.0 70333 10N 036

STATION ALTITUDE 3959.30 FEET MSL
 24 JULY 1962 0845 MDT
 ASCENSION NO. 396

UPPER AIR DATA
 2120Z 23196
 WHITE SANDS

GEODETIC COORDINATES
 32°40.43 LAT DEG
 106.37033 LON DEG

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	G/W/CUBIC METER	SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA KNOTS	INDEX OF REFRACTION
63500.0	55.1	-50.4	100.6	568.2	74.7	15.1	1.000024	
64500.0	53.5	-50.1	102.9	558.5	75.1	15.2	1.000023	
64500.0	52.0	-59.5	101.1	549.3	76.2	16.0	1.000023	
65500.0	52.5	-59.5	98.7	549.4	58.7	17.4	1.000022	
65500.0	52.1	-59.4	96.2	549.3	57.1	19.2	1.000021	
66000.0	52.7	-58.9	93.8	570.3	69.5	21.0	1.000021	
66500.0	56.3	-53.4	91.4	570.7	71.0	24.4	1.000020	
67000.0	55.7	-56.3	89.1	571.1	77.7	26.7	1.000020	
67500.0	53.7	-56.0	85.9	571.5	82.6	29.4	1.000019	
68000.0	52.4	-57.7	84.7	571.9	65.3	35.0	1.000019	
68500.0	51.1	-47.4	82.6	572.3	90.0	31.9	1.000018	
69000.0	49.3	-57.1	80.5	572.7	97.7	32.7	1.000018	
69500.0	48.8	-50.5	78.5	573.0	94.1	32.6	1.000017	
70000.0	47.6	-50.5	76.6	573.4	74.5	32.1	1.000017	
70500.0	46.3	-50.3	74.7	573.7	92.4	55.1	1.000017	
71000.0	45.0	-50.3	72.8	574.1	96.1	35.6	1.000016	
71500.0	44.4	-51.1	71.0	574.5	94.7	36.0	1.000016	
72000.0	43.4	-52.3	69.2	574.9	90.7	36.4	1.000015	
72500.0	42.4	-52.7	67.4	575.3	89.5	36.8	1.000015	
73000.0	41.4	-54.7	65.7	576.5	86.1	37.0	1.000015	
73500.0	40.3	-53.0	64.0	577.2	80.0	37.0	1.000014	
74000.0	39.4	-52.0	62.4	577.9	79.3	37.4	1.000014	
74500.0	38.4	-52.0	60.8	578.6	76.5	37.8	1.000014	
75000.0	37.4	-52.0	59.1	579.4	73.8	38.2	1.000014	
75500.0	36.4	-52.0	57.4	579.7	71.1	38.6	1.000014	
76000.0	35.4	-52.0	56.0	580.3	68.4	39.0	1.000014	
76500.0	34.4	-52.0	54.7	580.9	65.7	39.4	1.000014	
77000.0	33.4	-52.0	53.4	581.5	63.1	39.8	1.000014	
77500.0	32.4	-52.0	52.1	582.1	60.5	40.2	1.000014	
78000.0	31.4	-52.0	50.9	582.7	57.9	40.6	1.000014	
78500.0	30.4	-52.0	49.7	583.3	55.3	41.0	1.000014	
79000.0	29.4	-52.0	48.5	583.9	52.7	41.4	1.000014	
79500.0	28.4	-52.0	47.3	584.5	50.1	41.8	1.000014	
80000.0	27.4	-52.0	46.1	585.1	47.5	42.2	1.000014	
80500.0	26.4	-52.0	44.9	585.7	44.9	42.6	1.000014	
81000.0	25.4	-52.0	43.7	586.3	42.3	43.0	1.000014	
81500.0	24.4	-52.0	42.5	586.9	39.7	43.4	1.000014	
82000.0	23.4	-52.0	41.3	587.5	37.1	43.8	1.000014	
82500.0	22.4	-52.0	40.1	588.1	34.5	44.2	1.000014	
83000.0	21.4	-52.0	38.9	588.7	31.9	44.6	1.000014	
83500.0	20.4	-52.0	37.7	589.3	29.3	45.0	1.000014	
84000.0	19.4	-52.0	36.5	589.9	26.7	45.4	1.000014	
84500.0	18.4	-52.0	35.3	590.5	24.1	45.8	1.000014	
85000.0	17.4	-52.0	34.1	591.1	21.5	46.2	1.000014	
85500.0	16.4	-52.0	32.9	591.7	18.9	46.6	1.000014	
86000.0	15.4	-52.0	31.7	592.3	16.3	47.0	1.000014	
86500.0	14.4	-52.0	30.5	592.9	13.7	47.4	1.000014	
87000.0	13.4	-52.0	29.3	593.5	11.1	47.8	1.000014	
87500.0	12.4	-52.0	28.1	594.1	8.5	48.2	1.000014	
88000.0	11.4	-52.0	26.9	594.7	5.9	48.6	1.000014	
88500.0	10.4	-52.0	25.7	595.3	3.3	49.0	1.000014	
89000.0	9.4	-52.0	24.5	595.9	0.7	49.4	1.000014	
89500.0	8.4	-52.0	23.3	596.5	-1.9	49.8	1.000014	
90000.0	7.4	-52.0	22.1	597.1	-4.5	50.2	1.000014	
90500.0	6.4	-52.0	20.9	597.7	-7.1	50.6	1.000014	
91000.0	5.4	-52.0	19.7	598.3	-9.7	51.0	1.000014	
91500.0	4.4	-52.0	18.5	598.9	-12.3	51.4	1.000014	
92000.0	3.4	-52.0	17.3	599.5	-14.9	51.8	1.000014	
92500.0	2.4	-52.0	16.1	600.1	-17.5	52.2	1.000014	
93000.0	1.4	-52.0	14.9	600.7	-20.1	52.6	1.000014	
93500.0	0.4	-52.0	13.7	601.3	-22.7	53.0	1.000014	
94000.0	-1.0	-52.0	12.5	601.9	-25.3	53.4	1.000014	
94500.0	-2.0	-52.0	11.3	602.5	-27.9	53.8	1.000014	
95000.0	-3.0	-52.0	10.1	603.1	-30.5	54.2	1.000014	
95500.0	-4.0	-52.0	8.9	603.7	-33.1	54.6	1.000014	
96000.0	-5.0	-52.0	7.7	604.3	-35.7	55.0	1.000014	
96500.0	-6.0	-52.0	6.5	604.9	-38.3	55.4	1.000014	
97000.0	-7.0	-52.0	5.3	605.5	-40.9	55.8	1.000014	
97500.0	-8.0	-52.0	4.1	606.1	-43.5	56.2	1.000014	
98000.0	-9.0	-52.0	2.9	606.7	-46.1	56.6	1.000014	
98500.0	-10.0	-52.0	1.7	607.3	-48.7	57.0	1.000014	
99000.0	-11.0	-52.0	0.5	607.9	-51.3	57.4	1.000014	
99500.0	-12.0	-52.0	-1.7	608.5	-53.9	57.8	1.000014	
100000.0	-13.0	-52.0	-4.1	609.1	-56.5	58.2	1.000014	

STATION ALTITUDE 747 FEET, C. 0.9891
6 JULY 1976
ASCENSION NO. 396 COA5 MDT

URPTN 21K DATA
210000396
WHILE SAWNS

GEODETIC COORDINATES
32.40043 LAT DEG
106.77035 LON DEG

TABLE 9 Cont'd

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	REL.HUM. MM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(CIN) DEGREES	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
93500.0	25.3	-69.8	39.5	582.3	86.2	35.7	1.000009	
94000.0	26.7	-69.3	38.5	582.2	86.1	34.2	1.000009	
94500.0	24.2	-43.9	37.6	583.3	86.1	34.6	1.000006	
95000.0	23.5	-48.3	36.6	584.2	85.1	35.6	1.000008	
95500.0	23.1	-47.9	35.7	584.3	84.7	36.8	1.000008	
96000.0	22.9	-47.7	36.9	585.5	63.1	37.9	1.000006	
96500.0	22.1	-45.6	33.9	586.1	84.4	38.9	1.000006	
87000.0	21.6	-45.3	33.1	586.8	86.6	39.9	1.000007	
87500.0	21.1	-45.6	32.3	587.4	88.5	40.9	1.000007	
88000.0	20.6	-45.3	31.5	588.3	91.5	41.1	1.000007	
88500.0	20.1	-44.8	30.7	588.7	94.7	41.2	1.000007	
89000.0	19.7	-44.5	30.0	589.1	97.9	41.4	1.000007	
89500.0	19.2	-44.2	29.3	589.5	96.7	40.6	1.000007	
90000.0	18.8	-43.9	28.6	589.9	99.0	39.5	1.000006	
90500.0	19.4	-43.6	27.9	590.3	99.3	38.4	1.000006	
91000.0	18.0	-43.2	27.3	590.7	98.6	38.2	1.000006	
91500.0	17.6	-42.9	26.6	591.1	97.6	38.2	1.000006	
92000.0	17.2	-42.6	26.0	591.5	96.6	38.2	1.000006	
92500.0	15.6	-42.1	25.4	591.9	95.6	38.7	1.000006	
93000.0	15.5	-42.0	24.8	592.3	94.5	39.2	1.000006	
93500.0	15.1	-41.7	24.2	592.7	93.5	39.8	1.000005	
94000.0	15.7	-41.4	23.7	593.1	92.5	41.4	1.000005	
94500.0	15.4	-41.1	23.1	593.4	91.5	44.0	1.000005	
95000.0	15.1	-40.8	22.6	593.8	90.6	46.4	1.000005	
95500.0	14.7	-40.5	22.0	594.2	90.7	47.2	1.000005	
96000.0	14.4	-40.2	21.5	594.6	89.4	47.2	1.000005	
96500.0	14.1	-39.9	21.0	595.0	88.9	47.2	1.000005	
97000.0	13.8	-39.6	20.5	595.4	88.5	46.8	1.000005	
97500.0	13.5	-39.3	20.1	595.8	87.6	46.3	1.000004	
98000.0	13.2	-39.1	19.6	596.2	87.0	45.7	1.000004	
98500.0	12.9	-39.1	19.2	596.3	86.4	45.4	1.000004	
99000.0	12.6	-39.0	18.8	596.1	87.1	45.7	1.000004	
99500.0	12.3	-39.0	18.4	596.1	87.5	46.0	1.000004	
100000.0	12.1	-39.0	17.9	596.1	87.2	46.3	1.000004	
100500.0	11.8	-39.0	17.6	596.2	86.7	45.8	1.000004	
101000.0	11.5	-39.0	17.2	596.2	89.9	44.9	1.000004	
101500.0	11.2	-38.9	16.9	596.2	91.2	43.7	1.000004	
102000.0	11.0	-38.9	16.6	596.3	97.5	42.7	1.000004	
102500.0	10.6	-38.9	16.1	596.3	96.3	41.7	1.000004	
103000.0	10.4	-38.9	15.7	596.3	95.7	40.3	1.000003	

UNIVERSITY OF TORONTO LIBRARIES

61301116 0004011415
22-40043 1A1 016
106-27033 100 016

TABLE 9 Cont'd

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STATION ALTITUDE: 10000 FT MSL
10 JULY 26
ASCENSION NO. 39, 0845 MDT

WIND DIRECTIONS
2120020355
WIND SPEEDS
32.40043 LAT 016

GEODETIC COORDINATES
32.40043 LAT 016
106.17033 LON 016

TABLE 10

PRESSURE MILLIBARS	ELEVATION FEET	TEMPERATURE		REL.HUM. PERCENT	DISTILLION DEGREES(1N)	SPEED KNOTS
		DEGREES CENTIGRADE	AT DE-POINT			
850.0	5193.0	21.0	10.2	60.	193.0	6.0
850.0	5607.0	16.0	6.5	44.	175.0	10.6
750.0	3614.0	14.6	6.0	50.	162.0	7.7
750.0	10515.0	10.4	1.0	55.	79.0	7.1
650.0	14522.0	5.1	0.8	60.	113.0	6.0
550.0	16648.0	-1.1	-3.0	81.	110.7	11.1
550.0	16920.0	-7.8	-13.1	46.	125.5	16.4
550.0	19156.0	-4.5	-2.5	16.	145.2	2.9
450.0	22085.0	-9.7	-28.7	16.	108.0	2.7
450.0	25039.0	-16.7	-32.4	24.	72.3	3.3
450.0	28276.0	-23.9	-35.1	23.	51.4	8.4
350.0	31405.0	-32.5	-46.5	23.	65.0	7.0
250.0	36319.0	-43.5			77.5	1.7
250.0	43823.0	-54.8			21.1	11.5
170.0	43580.0	-61.7			89.7	16.7
150.0	46658.0	-68.6			90.2	22.4
150.0	52270.0	-70.2			29.0	9.9
100.0	54596.0	-69.0			84.3	13.7
50.0	59367.0	-61.5			83.4	2.4
70.0	61780.0	-59.0			87.4	1.7
60.0	64942.0	-59.4			62.0	12.9
50.0	68707.0	-57.1			73.0	52.7
40.0	73373.0	-57.4			92.7	7.6
40.0	79477.0	-57.4			80.0	3.0
30.0	83361.0	-45.0			82.0	1.0
20.0	85209.0	-44.7			95.0	0.0
10.0	92679.0	-40.8			20.0	6.0
10.0	105693.0	-38.8				

• AT LEAST ONE ASSURED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION LATITUDE 32° 45' 45" N.
STATION LONGITUDE 136° 44' 30" E.
DATE JULY 24, 1974
ASCENSION NO. 2112

STATION LEVEL DATA

COORDINATE COORDINATES
32° 45.797 LAT DEG
136° 44.712 LON DEG

FIGURE 11

WATER LEVEL	DEPTHS	TEMPERATURE		REL.HUM. PERCENT
		AT 1000'	AT 500'	
0.00	40.1	27.5	27.5	49.0
0.00	67.7	26.1	26.1	39.0
0.00	100.0	26.1	26.1	40.0
0.00	137.3	26.1	26.1	41.0
0.00	174.9	26.1	26.1	44.0
0.00	212.5	26.1	26.1	45.0
0.00	250.1	26.1	26.1	48.0
0.00	287.7	26.1	26.1	58.0
0.00	325.3	26.1	26.1	71.0
0.00	362.9	26.1	26.1	45.0
0.00	400.5	26.1	26.1	62.0
0.00	438.1	26.1	26.1	78.0
0.00	475.7	26.1	26.1	72.0
0.00	513.3	26.1	26.1	85.0
0.00	550.9	26.1	26.1	72.0
0.00	588.5	26.1	26.1	65.0
0.00	626.1	26.1	26.1	75.0
0.00	663.7	26.1	26.1	65.0
0.00	701.3	26.1	26.1	75.0
0.00	738.9	26.1	26.1	65.0
0.00	776.5	26.1	26.1	75.0
0.00	814.1	26.1	26.1	65.0
0.00	851.7	26.1	26.1	75.0
0.00	889.3	26.1	26.1	65.0
0.00	926.9	26.1	26.1	75.0
0.00	964.5	26.1	26.1	65.0
0.00	1002.1	26.1	26.1	75.0
0.00	1039.7	26.1	26.1	65.0
0.00	1077.3	26.1	26.1	75.0
0.00	1114.9	26.1	26.1	65.0
0.00	1152.5	26.1	26.1	75.0
0.00	1189.1	26.1	26.1	65.0
0.00	1226.7	26.1	26.1	75.0
0.00	1264.3	26.1	26.1	65.0
0.00	1301.9	26.1	26.1	75.0
0.00	1339.5	26.1	26.1	65.0
0.00	1377.1	26.1	26.1	75.0
0.00	1414.7	26.1	26.1	65.0
0.00	1452.3	26.1	26.1	75.0
0.00	1489.9	26.1	26.1	65.0
0.00	1527.5	26.1	26.1	75.0
0.00	1565.1	26.1	26.1	65.0
0.00	1602.7	26.1	26.1	75.0
0.00	1640.3	26.1	26.1	65.0
0.00	1677.9	26.1	26.1	75.0
0.00	1715.5	26.1	26.1	65.0
0.00	1753.1	26.1	26.1	75.0
0.00	1790.7	26.1	26.1	65.0
0.00	1828.3	26.1	26.1	75.0
0.00	1865.9	26.1	26.1	65.0
0.00	1903.5	26.1	26.1	75.0
0.00	1941.1	26.1	26.1	65.0
0.00	1978.7	26.1	26.1	75.0
0.00	2016.3	26.1	26.1	65.0
0.00	2053.9	26.1	26.1	75.0
0.00	2091.5	26.1	26.1	65.0
0.00	2129.1	26.1	26.1	75.0
0.00	2166.7	26.1	26.1	65.0
0.00	2204.3	26.1	26.1	75.0
0.00	2241.9	26.1	26.1	65.0
0.00	2279.5	26.1	26.1	75.0
0.00	2317.1	26.1	26.1	65.0
0.00	2354.7	26.1	26.1	75.0
0.00	2392.3	26.1	26.1	65.0
0.00	2429.9	26.1	26.1	75.0
0.00	2467.5	26.1	26.1	65.0
0.00	2505.1	26.1	26.1	75.0
0.00	2542.7	26.1	26.1	65.0
0.00	2579.3	26.1	26.1	75.0
0.00	2616.9	26.1	26.1	65.0
0.00	2654.5	26.1	26.1	75.0
0.00	2692.1	26.1	26.1	65.0
0.00	2729.7	26.1	26.1	75.0
0.00	2767.3	26.1	26.1	65.0
0.00	2804.9	26.1	26.1	75.0
0.00	2842.5	26.1	26.1	65.0
0.00	2879.1	26.1	26.1	75.0
0.00	2916.7	26.1	26.1	65.0
0.00	2954.3	26.1	26.1	75.0
0.00	2991.9	26.1	26.1	65.0
0.00	3029.5	26.1	26.1	75.0
0.00	3067.1	26.1	26.1	65.0
0.00	3104.7	26.1	26.1	75.0
0.00	3142.3	26.1	26.1	65.0
0.00	3179.9	26.1	26.1	75.0
0.00	3217.5	26.1	26.1	65.0
0.00	3255.1	26.1	26.1	75.0
0.00	3292.7	26.1	26.1	65.0
0.00	3329.3	26.1	26.1	75.0
0.00	3366.9	26.1	26.1	65.0
0.00	3404.5	26.1	26.1	75.0
0.00	3442.1	26.1	26.1	65.0
0.00	3479.7	26.1	26.1	75.0
0.00	3517.3	26.1	26.1	65.0
0.00	3554.9	26.1	26.1	75.0
0.00	3592.5	26.1	26.1	65.0
0.00	3629.1	26.1	26.1	75.0
0.00	3666.7	26.1	26.1	65.0
0.00	3704.3	26.1	26.1	75.0
0.00	3741.9	26.1	26.1	65.0
0.00	3779.5	26.1	26.1	75.0
0.00	3817.1	26.1	26.1	65.0
0.00	3854.7	26.1	26.1	75.0
0.00	3892.3	26.1	26.1	65.0
0.00	3929.9	26.1	26.1	75.0
0.00	3967.5	26.1	26.1	65.0
0.00	4005.1	26.1	26.1	75.0
0.00	4042.7	26.1	26.1	65.0
0.00	4079.3	26.1	26.1	75.0
0.00	4116.9	26.1	26.1	65.0
0.00	4154.5	26.1	26.1	75.0
0.00	4192.1	26.1	26.1	65.0
0.00	4229.7	26.1	26.1	75.0
0.00	4267.3	26.1	26.1	65.0
0.00	4304.9	26.1	26.1	75.0
0.00	4342.5	26.1	26.1	65.0
0.00	4379.1	26.1	26.1	75.0
0.00	4416.7	26.1	26.1	65.0
0.00	4454.3	26.1	26.1	75.0
0.00	4491.9	26.1	26.1	65.0
0.00	4529.5	26.1	26.1	75.0
0.00	4567.1	26.1	26.1	65.0
0.00	4604.7	26.1	26.1	75.0
0.00	4642.3	26.1	26.1	65.0
0.00	4679.9	26.1	26.1	75.0
0.00	4717.5	26.1	26.1	65.0
0.00	4755.1	26.1	26.1	75.0
0.00	4792.7	26.1	26.1	65.0
0.00	4829.3	26.1	26.1	75.0
0.00	4866.9	26.1	26.1	65.0
0.00	4904.5	26.1	26.1	75.0
0.00	4942.1	26.1	26.1	65.0
0.00	4979.7	26.1	26.1	75.0
0.00	5017.3	26.1	26.1	65.0
0.00	5054.9	26.1	26.1	75.0
0.00	5092.5	26.1	26.1	65.0
0.00	5129.1	26.1	26.1	75.0
0.00	5166.7	26.1	26.1	65.0
0.00	5204.3	26.1	26.1	75.0
0.00	5241.9	26.1	26.1	65.0
0.00	5279.5	26.1	26.1	75.0
0.00	5317.1	26.1	26.1	65.0
0.00	5354.7	26.1	26.1	75.0
0.00	5392.3	26.1	26.1	65.0
0.00	5429.9	26.1	26.1	75.0
0.00	5467.5	26.1	26.1	65.0
0.00	5505.1	26.1	26.1	75.0
0.00	5542.7	26.1	26.1	65.0
0.00	5579.3	26.1	26.1	75.0
0.00	5617.1	26.1	26.1	65.0
0.00	5654.7	26.1	26.1	75.0
0.00	5692.3	26.1	26.1	65.0
0.00	5729.9	26.1	26.1	75.0
0.00	5767.5	26.1	26.1	65.0
0.00	5805.1	26.1	26.1	75.0
0.00	5842.7	26.1	26.1	65.0
0.00	5879.3	26.1	26.1	75.0
0.00	5917.1	26.1	26.1	65.0
0.00	5954.7	26.1	26.1	75.0
0.00	5992.3	26.1	26.1	65.0
0.00	6029.9	26.1	26.1	75.0
0.00	6067.5	26.1	26.1	65.0
0.00	6105.1	26.1	26.1	75.0
0.00	6142.7	26.1	26.1	65.0
0.00	6179.3	26.1	26.1	75.0
0.00	6217.1	26.1	26.1	65.0
0.00	6254.7	26.1	26.1	75.0
0.00	6292.3	26.1	26.1	65.0
0.00	6329.9	26.1	26.1	75.0
0.00	6367.5	26.1	26.1	65.0
0.00	6405.1	26.1	26.1	75.0
0.00	6442.7	26.1	26.1	65.0
0.00	6479.3	26.1	26.1	75.0
0.00	6517.1	26.1	26.1	65.0
0.00	6554.7	26.1	26.1	75.0
0.00	6592.3	26.1	26.1	65.0
0.00	6629.9	26.1	26.1	75.0
0.00	6667.5	26.1	26.1	65.0
0.00	6705.1	26.1	26.1	75.0
0.00	6742.7	26.1	26.1	65.0
0.00	6779.3	26.1	26.1	75.0
0.00	6817.1	26.1	26.1	65.0
0.00	6854.7	26.1	26.1	75.0
0.00	6892.3	26.1	26.1	65.0
0.00	6929.9	26.1	26.1	75.0
0.00	6967.5	26.1	26.1	65.0
0.00	7005.1	26.1	26.1	75.0
0.00	7042.7	26.1	26.1	65.0
0.00	7079.3	26.1	26.1	75.0
0.00	7117.1	26.1	26.1	65.0
0.00	7154.7	26.1	26.1	75.0
0.00	7192.3	26.1	26.1	65.0
0.00	7229.9	26.1	26.1	75.0
0.00	7267.5	26.1	26.1	65.0
0.00	7305.1	26.1	26.1	75.0
0.00	7342.7	26.1	26.1	65.0
0.00	7379.3	26.1	26.1	75.0
0.00	7417.1	26.1	26.1	65.0
0.00	7454.7	26.1	26.1	75.0
0.00	7492.3	26.1	26.1	65.0
0.00	7529.9	26.1	26.1	75.0
0.00	7567.5	26.1	26.1	65.0
0.00	7605.1	26.1	26.1	75.0
0.00	7642.7	26.1	26.1	65.0
0.00	7679.3	26.1	26.1	75.0
0.00	7717.1	26.1	26.1	65.0
0.00	7754.7	26.1	26.1	75.0
0.00	7792.3	26.1	26.1	65.0
0.00	7829.9	26.1	26.1	75.0
0.00				

STATION ALTITUDE 6010.6 FEET M.S.
25 JULY 66 17 1130 MOT
ASCENSION NO. 17

UPPER AIR DATA
c 123220017

TABLE 12

GEOMETRIC ALTITUDE ASL FEET	PRESSURE WILLIAMS DEGREES	TEMPERATURE CENTIGRADE	ATL DE-POINT PERCENT	REL. HUM. PERCENT	WIND SPEED KNOTS	DENSITY OF SOUND AFTER WATER	WIND DATA DIRECTION DEGREES(CN)	WIND SPEED KNOTS	INDEX OF REFRACTION	
4610.4	652.2	26.2	13.5	49.3	10.8	1312.5	578.8	60.0	1.0	1.000290
4620.4	658.4	25.6	13.8	49.1	10.6	1006.8	575.3			1.000279
5130.4	553.5	24.9	9.7	43.4	9.2	994.2	573.4			1.000274
5530.4	538.9	22.2	5.1	41.6	4.1	954.1	571.3			1.000266
6030.4	524.5	21.4	5.1	42.4	4.2	969.9	670.2			1.000262
6530.4	519.7	20.5	7.6	45.2	9.5	955.9	669.2			1.000259
7030.4	735.2	19.6	7.0	44.4	9.4	942.1	568.2	227.7	1.4	1.000254
7530.4	731.5	18.7	6.9	47.1	9.7	929.7	556.7	239.0	2.8	1.000251
8030.4	747.5	16.9	6.6	58.1	5.1	917.5	555.1	245.1	3.6	1.000248
8530.4	756.0	15.6	6.0	52.5	9.5	905.5	563.5	246.4	3.8	1.000245
9030.4	760.2	14.2	5.7	58.7	8.2	891.6	661.9	244.5	3.6	1.000241
9530.4	727.4	12.4	5.2	54.9	9.2	932.0	560.3	232.7	2.5	1.000238
10030.4	714.5	11.5	4.7	63.1	5.5	870.4	558.8	194.0	1.5	1.000234
10530.4	731.8	10.7	4.9	67.8	8.1	857.1	657.9	196.5	1.2	1.000232
11030.4	785.9	9.8	5.7	66.7	9.7	845.0	656.5	146.7	0.7	1.000226
11530.4	675.4	8.7	7.7	51.7	3.1	833.1	655.1	95.9	0.4	1.000213
12030.4	654.2	7.8	1.7	51.7	8.6	821.6	653.7	107.7	1.5	1.000209
12530.4	651.7	6.9	1.7	56.5	8.1	810.1	652.2	116.0	1.7	1.000207
13030.4	636.8	5.9	1.8	61.4	7.8	798.8	650.8	126.7	1.4	1.000205
13530.4	625.4	5.0	2.4	66.3	2.3	787.9	549.2	127.9	0.4	1.000202
14030.4	625.4	2.3	2.3	73.5	7.5	777.1	647.5	127.4	1.1	1.000201
14530.4	604.4	1.9	1.0	74.0	6.6	766.6	645.9	125.7	1.8	1.000200
15030.4	591.4	1.7	1.0	72.0	5.5	755.5	644.5	124.1	1.5	1.000199
15530.4	584.1	1.7	1.0	69.4	4.1	744.1	643.3	124.1	1.5	1.000198
16030.4	571.4	1.6	1.0	63.1	2.5	732.5	642.2	121.1	1.0	1.000197
16530.4	565.0	1.5	1.0	78.4	7.8	723.8	641.2	125.5	1.4	1.000196
17030.4	562.8	1.5	1.0	56.0	7.2	708.2	640.7	144.4	1.1	1.000195
17530.4	539.7	1.5	1.0	74.2	7.0	695.8	640.3	155.0	1.0	1.000194
18030.4	529.8	1.5	1.0	72.4	6.2	681.5	539.5	150.7	0.9	1.000193
18530.4	529.8	1.5	1.0	22.4	2.8	70.1	539.5	152.6	0.9	1.000192
19030.4	517.4	1.5	1.0	23.4	2.8	570.9	537.0	152.6	0.9	1.000191
19530.4	512.4	1.5	1.0	15.7	1.3	555.5	535.9	151.9	0.9	1.000190
20030.4	504.4	1.4	1.0	12.0	1.3	42.7	534.8	151.9	0.9	1.000189
20530.4	492.4	1.4	1.0	17.4	1.3	54.0	534.8	150.7	0.9	1.000188
21030.4	487.4	1.4	1.0	23.7	1.4	536.1	535.5	150.7	0.9	1.000187
21530.4	481.1	1.4	1.0	21.4	1.4	526.8	537.0	150.7	0.9	1.000186
22030.4	471.4	1.4	1.0	16.3	1.4	516.1	535.9	150.7	0.9	1.000185
22530.4	462.4	1.4	1.0	42.7	1.4	526.3	534.8	150.7	0.9	1.000184
23030.4	457.4	1.4	1.0	46.7	1.4	54.7	535.5	150.7	0.9	1.000183
23530.4	451.4	1.4	1.0	21.4	1.4	557.9	532.0	150.7	0.9	1.000182
24030.4	445.4	1.4	1.0	25.5	1.4	570.9	530.5	150.7	0.9	1.000181
24530.4	435.4	1.4	1.0	25.5	1.4	570.9	529.5	150.7	0.9	1.000180
25030.4	426.4	1.4	1.0	25.5	1.4	570.9	528.5	150.7	0.9	1.000179

WIND DATA INFERRED FOR MISSING HEIGHT AND ELEVATION AND

STATION ALTITUDE 6310.4 CFS 151
10 JULY 1971 11130 MDT
ASCENSION NO. 17

UPPER AIR DATA
21C220017
NW 33

GEODETIC COORDINATES
32° 58.497 LAT DEG
196.49714 LON DEG

TABLE 12 Cont'd

GEODETIC PRESSURE	TEMPERATURE	REL.HUM.	DENSITY	SPEED OF	WIND DATA	INDEX
ALTITUDE	AIR DE-POINT	PERCENT	GM/CUBIC	DIRECTION	SPEED	OF
MSL FEET	DEGREES CENTIGRAVE	METER	METER	DEGREES (IN)	KNOTS	REFRACTION
24000.0	418.9	-13.0	28.2	561.6	527.5	9.0
26000.0	410.2	-14.9	24.6	553.1	626.2	7.7
25000.0	422.1	-16.1	21.0	544.6	624.7	6.5
25500.0	394.2	-17.4	20.1	536.1	623.4	6.0
26000.0	336.3	-18.2	20.2	527.5	622.3	5.5
26500.0	376.2	-19.4	20.4	519.3	620.7	5.0
27000.0	377.0	-20.4	20.5	510.5	619.6	4.6
27500.0	353.0	-21.5	20.6	502.4	618.1	4.5
28000.0	325.0	-22.6	20.7	496.3	616.7	4.4
28500.0	346.4	-23.7	20.9	486.4	615.4	4.3
29000.0	341.5	-24.6	21.0	478.5	614.0	4.2
29500.0	334.1	-26.0	21.2	470.8	612.6	4.1
30000.0	327.1	-27.1	21.4	463.2	611.1	4.0
30500.0	320.3	-28.3	21.5	455.7	609.5	3.9
31000.0	312.0	-29.5	21.7	448.5	608.1	3.8
31500.0	307.0	-30.7	21.8	441.1	606.6	3.6
32000.0	302.4	-31.7	22.0	433.9	605.1	3.5
32500.0	294.1	-33.2	22.2	426.9	603.5	3.4
33000.0	287.7	-34.5	22.4	420.7	601.9	3.3
33500.0	285.5	-35.5	22.5	413.5	600.2	3.2
34000.0	282.0	-36.5	22.6	406.3	598.5	3.1
34500.0	275.4	-37.4	22.8	399.9	596.9	3.0
35000.0	269.8	-38.4	22.9	393.7	595.4	2.9
35500.0	264.1	-39.4	23.0	386.6	593.8	2.8
36000.0	252.0	-40.4	23.1	379.4	592.3	2.7
36500.0	247.6	-41.4	24.1	372.2	590.7	2.6
37000.0	242.1	-42.4	24.8	406.5	588.5	2.5
37500.0	235.6	-43.4	25.5	399.9	586.9	2.4
38000.0	231.1	-44.4	26.2	393.7	585.3	2.3
38500.0	225.6	-45.4	26.4	386.6	583.8	2.2
39000.0	220.1	-46.4	26.4	380.3	582.2	2.1
39500.0	214.6	-47.4	26.5	373.4	580.6	2.0
40000.0	209.1	-48.4	26.6	366.7	579.1	1.9
40500.0	203.6	-49.4	26.6	360.1	577.6	1.8
41000.0	198.1	-50.4	26.7	353.7	576.1	1.7
41500.0	192.6	-51.4	26.7	347.4	574.6	1.6
42000.0	187.1	-52.4	26.7	341.1	573.1	1.5
42500.0	181.6	-53.4	26.7	335.7	571.6	1.4
43000.0	176.1	-54.4	26.7	329.4	570.1	1.3
43500.0	170.6	-55.4	26.7	323.4	567.6	1.2
44000.0	165.1	-56.4	26.7	317.5	567.1	1.1
44500.0	159.6	-57.4	26.7	312.2	567.0	1.0
45000.0	154.1	-58.4	26.7	305.9	566.9	0.9
45500.0	148.6	-59.4	26.7	300.6	566.8	0.8
46000.0	143.1	-60.4	26.7	294.3	566.7	0.7
46500.0	137.6	-61.4	26.7	288.0	566.6	0.6
47000.0	132.1	-62.4	26.7	281.7	566.5	0.5
47500.0	126.6	-63.4	26.7	275.4	566.4	0.4
48000.0	121.1	-64.4	26.7	269.1	566.3	0.3
48500.0	115.6	-65.4	26.7	262.8	566.2	0.2
49000.0	110.1	-66.4	26.7	256.5	566.1	0.1
49500.0	104.6	-67.4	26.7	250.2	566.0	0.0
50000.0	99.1	-68.4	26.7	243.9	565.9	-0.1
50500.0	93.6	-69.4	26.7	237.6	565.8	-0.2
51000.0	88.1	-70.4	26.7	231.3	565.7	-0.3
51500.0	82.6	-71.4	26.7	225.0	565.6	-0.4
52000.0	77.1	-72.4	26.7	218.7	565.5	-0.5
52500.0	71.6	-73.4	26.7	212.4	565.4	-0.6
53000.0	66.1	-74.4	26.7	206.1	565.3	-0.7
53500.0	60.6	-75.4	26.7	199.8	565.2	-0.8
54000.0	55.1	-76.4	26.7	193.5	565.1	-0.9
54500.0	49.6	-77.4	26.7	187.2	565.0	-1.0
55000.0	44.1	-78.4	26.7	180.9	564.9	-1.1
55500.0	38.6	-79.4	26.7	174.6	564.8	-1.2
56000.0	33.1	-80.4	26.7	168.3	564.7	-1.3
56500.0	27.6	-81.4	26.7	162.0	564.6	-1.4
57000.0	22.1	-82.4	26.7	155.7	564.5	-1.5
57500.0	16.6	-83.4	26.7	149.4	564.4	-1.6
58000.0	11.1	-84.4	26.7	143.1	564.3	-1.7
58500.0	5.6	-85.4	26.7	136.8	564.2	-1.8
59000.0	-0.1	-86.4	26.7	130.5	564.1	-1.9
59500.0	-5.5	-87.4	26.7	124.2	564.0	-2.0
60000.0	-11.0	-88.4	26.7	117.9	563.9	-2.1
60500.0	-16.5	-89.4	26.7	111.6	563.8	-2.2
61000.0	-22.0	-90.4	26.7	105.3	563.7	-2.3
61500.0	-27.5	-91.4	26.7	99.0	563.6	-2.4
62000.0	-33.0	-92.4	26.7	92.7	563.5	-2.5
62500.0	-38.5	-93.4	26.7	86.4	563.4	-2.6
63000.0	-44.0	-94.4	26.7	80.1	563.3	-2.7
63500.0	-49.5	-95.4	26.7	73.8	563.2	-2.8
64000.0	-55.0	-96.4	26.7	67.5	563.1	-2.9
64500.0	-60.5	-97.4	26.7	61.2	563.0	-3.0
65000.0	-66.0	-98.4	26.7	54.9	562.9	-3.1
65500.0	-71.5	-99.4	26.7	48.6	562.8	-3.2
66000.0	-77.0	-100.4	26.7	42.3	562.7	-3.3
66500.0	-82.5	-101.4	26.7	36.0	562.6	-3.4
67000.0	-88.0	-102.4	26.7	29.7	562.5	-3.5
67500.0	-93.5	-103.4	26.7	23.4	562.4	-3.6
68000.0	-99.0	-104.4	26.7	17.1	562.3	-3.7
68500.0	-104.5	-105.4	26.7	10.8	562.2	-3.8
69000.0	-110.0	-106.4	26.7	4.5	562.1	-3.9
69500.0	-115.5	-107.4	26.7	-1.1	562.0	-4.0
70000.0	-121.0	-108.4	26.7	-7.4	561.9	-4.1
70500.0	-126.5	-109.4	26.7	-13.1	561.8	-4.2
71000.0	-132.0	-110.4	26.7	-18.8	561.7	-4.3
71500.0	-137.5	-111.4	26.7	-24.5	561.6	-4.4
72000.0	-143.0	-112.4	26.7	-30.2	561.5	-4.5
72500.0	-148.5	-113.4	26.7	-35.9	561.4	-4.6
73000.0	-154.0	-114.4	26.7	-41.6	561.3	-4.7
73500.0	-159.5	-115.4	26.7	-47.3	561.2	-4.8
74000.0	-165.0	-116.4	26.7	-53.0	561.1	-4.9
74500.0	-170.5	-117.4	26.7	-58.7	561.0	-5.0
75000.0	-176.0	-118.4	26.7	-64.4	560.9	-5.1
75500.0	-181.5	-119.4	26.7	-70.1	560.8	-5.2
76000.0	-187.0	-120.4	26.7	-75.8	560.7	-5.3
76500.0	-192.5	-121.4	26.7	-81.5	560.6	-5.4
77000.0	-198.0	-122.4	26.7	-87.2	560.5	-5.5
77500.0	-203.5	-123.4	26.7	-92.9	560.4	-5.6
78000.0	-209.0	-124.4	26.7	-98.6	560.3	-5.7
78500.0	-214.5	-125.4	26.7	-104.3	560.2	-5.8
79000.0	-219.0	-126.4	26.7	-110.0	560.1	-5.9
79500.0	-224.5	-127.4	26.7	-115.7	560.0	-6.0
80000.0	-229.0	-128.4	26.7	-121.4	559.9	-6.1
80500.0	-234.5	-129.4	26.7	-127.1	559.8	-6.2
81000.0	-239.0	-130.4	26.7	-132.8	559.7	-6.3
81500.0	-244.5	-131.4	26.7	-138.5	559.6	-6.4
82000.0	-249.0	-132.4	26.7	-144.2	559.5	-6.5
82500.0	-254.5	-133.4	26.7	-150.0	559.4	-6.6
83000.0	-259.0	-134.4	26.7	-155.7	559.3	-6.7
83500.0	-264.5	-135.4	26.7	-161.4	559.2	-6.8
84000.0	-269.0	-136.4	26.7	-167.1	559.1	-6.9
84500.0	-274.5	-137.4	26.7	-172.8	559.0	-7.0
85000.0	-279.0	-138.4	26.7	-178.5	558.9	-7.1
85500.0	-284.5	-139.4	26.7	-184.2	558.8	-7.2
86000.0	-289.0	-140.4	26.7	-189.9	558.7	-7.3
86500.0	-294.5	-141.4	26.7	-195.6	558.6	-7.4
87000.0	-299.0	-142.4	26.7	-201.3	558.5	-7.5
87500.0	-304.5	-143.4	26.7	-207.0	558.4	-7.6
88000.0	-309.0	-144.4	26.7	-212.7	558.3	-7.7
88500.0	-314.5	-145.4	26.7	-218.4	558.2	-7.8
89000.0	-319.0	-146.4	26.7	-224.1	558.1	-7.9
89500.0	-324.5	-147.4	26.7	-229.8	558.0	-8.0
90000.0	-329.0	-148.4	26.7	-235.5	557.9	-8.1
90500.0	-334.5	-149.4	26.7	-241.2	557.8	-8.2
91000.0	-339.0	-150.4	26.7	-246.9	557.7	-8.3
91500.0	-344.5	-151.4	26.7	-252.6	557.6	-8.4
92000.0	-349.0	-152.4	26.7	-258.3	557.5	-8.5
92500.0	-354.5	-153.4	26.7	-264.0	557.4	-8.6
93000.0	-359.0	-154.4	26.7	-269.7	557.3	-8.7
93500.0	-364.5	-155.4	26.7	-275.4	557.2	-8.8
94000.0	-369.0	-156.4	26.7	-281.1	557.1	-8.9
94500.0	-374.5	-157.4	26.7	-286.8	557.0	-9.0
95000.0	-379.0	-158.4	26.7	-292.5	556.9	-9.1
95500.0	-384.5	-159.4	26.7	-298.2	556.8	-9.2
96000.0	-389.0	-160.4	26.7	-303.9	556.7	-9.3
96500.0	-394.5	-161.4	26.7	-309.6	556.6	-9.4

STATION ALTITUDE 4710.43 FEET MSL
21 JULY 1964 1130 MDT
ASCENSION NO. 17

UPPER AIR DATA
212223317
NW 30

TABLE 12 Cont'd

STATION ALTITUDE	PRESSURE	TEMPERATURE	KEL. HUM.	DENSITY	SPEED OF	WIND DATA	INDEX
ALTITUDE	AIR DE-POINT	PERCENT	CUBIC METER	SOUND	DIRECTION	SPEED	OF
MSL FLEET	WILLIAMS DEGREES	CENTIGRADE	KNOTS	KNOTS	DEGREES (IN)	KNOTS	REFRACTION
44000.0	173.6	-51.5	285.6	556.8	104.7	20.2	1.000064
44500.0	159.2	-56.7	250.1	565.2	103.4	21.4	1.000062
45000.0	155.1	-52.7	274.6	563.8	103.4	22.6	1.000061
45500.0	151.2	-54.7	269.2	562.6	102.8	21.6	1.000060
46000.0	157.1	-65.5	251.9	561.3	102.1	20.0	1.000059
46500.0	153.2	-65.8	258.7	559.6	101.1	17.1	1.000058
47000.0	149.5	-57.7	253.5	558.6	99.3	13.4	1.000056
47500.0	145.7	-55.0	247.4	558.0	96.8	9.1	1.000055
48000.0	142.1	-55.2	241.5	557.7	90.1	4.0	1.000054
48500.0	138.5	-55.5	235.9	557.3	87.8	1.5	1.000053
49000.0	135.1	-66.7	230.2	557.0	85.5	5.6	1.000051
49500.0	131.7	-59.0	224.7	556.7	80.1	9.8	1.000050
50000.0	128.4	-69.1	219.2	556.5	83.3	10.6	1.000049
50500.0	125.2	-65.1	212.8	557.8	84.5	15.6	1.000047
51000.0	122.1	-67.2	206.6	559.1	86.4	15.6	1.000046
51500.0	118.1	-66.7	200.9	559.8	86.4	18.6	1.000045
52000.0	116.1	-66.7	196.6	558.9	84.6	20.9	1.000044
52500.0	113.2	-67.4	192.4	557.8	86.1	19.1	1.000043
53000.0	110.4	-65.2	188.1	557.5	78.0	18.0	1.000042
53500.0	107.6	-65.4	183.0	557.7	84.0	12.9	1.000041
54000.0	105.0	-67.0	178.9	558.4	92.1	12.1	1.000040
54500.0	102.4	-67.2	173.5	558.9	68.4	10.8	1.000039
55000.0	99.9	-67.4	169.7	559.5	94.4	9.1	1.000038
55500.0	97.4	-67.5	164.2	560.3	91.7	8.7	1.000037
56000.0	95.0	-67.5	159.8	560.7	86.1	8.4	1.000036
56500.0	92.6	-67.5	155.5	561.4	71.9	8.0	1.000035
57000.0	90.3	-67.5	151.2	562.1	66.9	9.0	1.000034
57500.0	88.0	-67.5	147.2	562.9	59.7	10.7	1.000033
58000.0	85.8	-67.5	143.2	563.5	51.3	10.7	1.000032
58500.0	83.6	-67.5	139.4	564.3	43.1	15.2	1.000031
59000.0	81.4	-67.5	135.6	565.0	36.4	25.4	1.000030
59500.0	79.3	-67.5	132.1	565.7	44.5	25.8	1.000029
60000.0	77.2	-67.5	128.6	566.4	39.8	22.7	1.000028
60500.0	75.1	-67.5	125.0	567.1	37.2	20.2	1.000027
61000.0	73.1	-67.5	122.7	567.7	32.2	25.8	1.000027
61500.0	71.1	-67.5	119.3	567.1	32.1	20.7	1.000027
62000.0	69.1	-67.5	116.2	567.1	12.5	17.5	1.000026
62500.0	67.1	-67.5	113.3	567.3	102.1	16.6	1.000025
63000.0	65.1	-67.5	110.4	567.3	100.1	15.8	1.000025
63500.0	63.1	-67.5	107.6	568.3	117.2	16.0	1.000024

STATION ALTITUDE 6130.0 FEET MSL
25 JULY 1971 1130 MDT
ASCENSION NO. 17

UPPER AIR DATA
5120220017
106.49714 LON DEG
32.98497 LAT DEG
50.50000 ALT

TABLE 12 Cont'd

GEOMETRIC PRESSURE SL FEET	ALTIMETER MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT PERCENT	REFL.HUM. Cubic meter meter	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	56.1	-56.0		104.8	568.8	95.7	16.3	1.000023
64500.0	52.6	-59.5		102.1	569.3	93.3	17.4	1.000023
65000.0	51.1	-59.2		99.5	569.8	90.4	19.3	1.000022
65500.0	50.7	-58.5		97.0	570.3	86.6	21.5	1.000022
66000.0	50.2	-58.5		94.5	570.8	87.4	22.7	1.000021
66500.0	50.8	-55.1		92.1	571.3	86.7	26.2	1.000021
67000.0	55.5	-57.7		89.7	571.3	86.7	25.2	1.000020
67500.0	56.2	-57.4		87.5	572.2	87.1	25.6	1.000019
68000.0	52.9	-57.4		85.4	572.2	91.5	26.0	1.000019
68500.0	51.6	-57.4		83.4	572.2	92.9	26.5	1.000019
69000.0	50.4	-57.4		81.4	572.2	94.1	27.0	1.000018
69500.0	49.1	-56.7		79.2	573.1	94.6	1.000016	
70000.0	48.1	-55.7		77.1	574.4	77.1	1.000017	
70500.0	46.9	-54.8		74.9	575.7	87.7	1.000017	

STATION ALTITUDE 4010.40 FEET MSL
20 JULY 94 1130 MDT
ASCENSION NO. 17

MANDATORY LEVELS
E12022017
N 35
TABLE 13

GEODETIC COORDINATES
32.88497 LAT DEG
106.49716 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL HEIGHT FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT PERCENT	REL-HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5114.	22.9	9.0	41.	9999.0	9999.0
820.0	5938.	19.0	7.2	44.	222.3	1.5
750.0	5650.	15.2	5.0	54.	245.4	3.5
700.0	15554.	10.6	4.9	68.	135.0	6.6
650.0	12465.	6.1	1.7	57.	119.5	7.7
500.0	14669.	-4	-3.5	75.	125.8	14.5
550.0	15074.	-7.2	-10.4	57.	143.9	14.3
500.0	19444.	-4.1	-7.5	17.	285.3	3.6
450.0	22165.	-9.4	-20.1	41.	45.4	7.8
400.0	25092.	-16.4	-36.0	20.	57.2	6.4
350.0	28143.	-21.4	-39.6	21.	60.3	5.4
300.0	31961.	-32.0	-45.5	22.	56.9	3.5
250.0	36111.	-42.5	-57.5	19.5	82.0	14.7
200.0	40939.	-51.5	-61.3	134.	19.4	
175.0	43713.	-51.3	-67.7	20.	44.1	
150.0	46501.	-67.7	-75.1	35.4	73.	
125.0	50387.	-68.1	-77.1	24.	27.7	
100.0	54293.	-62.3	-62.3	21.6	25.0	
80.0	59261.	-61.3	-61.3	12.2	17.2	
70.0	61960.	-58.9	-58.9	36.2	27.3	
60.0	65136.	-57.4	-57.4	90.4	27.2	
50.0	68900.					

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

TABLE 14
PRESSURE, GEOMETRIC ALTITUDE, AIR DE-POINT OF DEW, AND TEMPERATURE GRADE REL. HUM. PERCENT

957.0	342.2	11.9	29.0
957.2	4295.0	29.1	34.0
957.3	5720.8	26.6	39.0
957.5	7628.5	19.9	49.0
957.6	2564.2	13.0	5.6
957.7	1057.1	14.3	5.9
957.8	1121.7	9.6	2.1
957.9	1252.4	2.9	-2.3
958.0	1464.7	7	-1.5
958.1	1449.5	7	-4.5
958.2	1568.9	14.9	-3.5
958.3	1677.4	3.5	-5.3
958.4	1729.8	3.9	-11.4
958.5	17705.0	4.0	-15.6
958.6	18511.0	5.1	-20.7
958.7	19446.8	6.3	-21.8
958.8	25092.6	7.6	-32.0
958.9	27384.7	7	-34.9
959.0	31979.5	8	-45.3
959.1	32619.5	7.5	-50.5
959.2	3267.1	7	-59.3
959.3	3355.3	7	-67.3
959.4	34642.5	7	-74.3

STATION ALTITUDE 4,751.00 FEET 451
 3 JULY 6, ASCENSION NO. 37 1211 MDT

UPPER AIR DATA
 212003Z097
 JALIFEN
 TABLE 15

GEODETIC COORDINATES
 33.16712 LAT DEC
 106.49511 LONG DEC

GEOMETRIC ALTITUDE MSL FLEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	SOUND METER KNOTS	WIND DATA		INDEX OF REFRACTION
					DIR. DEGREES (TN)	SPEED KNOTS	
4051.0	553.2	32.2	11.9	29.0	998.2	582.9	220.0
4500.0	556.8	2b.7	11.9	35.3	996.2	679.0	206.4
5000.0	552.1	25.9	11.6	38.5	983.4	676.8	191.6
5500.0	537.4	25.3	11.1	42.8	971.5	675.1	178.8
6000.0	522.9	23.8	10.5	42.9	959.6	673.4	168.9
6500.0	509.7	22.4	9.9	45.0	947.8	671.5	159.9
7000.0	794.7	23.9	9.2	47.1	936.2	669.9	148.8
7500.0	790.9	19.4	8.5	49.4	924.8	658.2	136.6
8000.0	757.1	17.5	6.0	52.5	913.5	566.3	125.5
8500.0	753.5	16.5	7.4	55.6	902.3	664.5	115.9
9000.0	745.2	14.7	6.7	58.6	891.2	652.5	106.4
9500.0	727.0	13.1	6.0	61.7	980.4	560.9	97.0
10000.0	714.0	12.4	4.2	57.4	957.8	659.5	85.5
10500.0	701.2	11.4	2.3	53.4	955.2	658.6	74.2
11000.0	685.5	10.3	-4	47.5	943.5	656.9	64.0
11500.0	675.6	9.2	-1.8	46.5	932.0	555.6	53.4
12000.0	653.5	7.6	-1.4	52.5	920.7	653.3	52.1
12500.0	651.4	6.2	-1.2	53.5	909.5	652.2	51.0
13000.0	637.1	4.4	-1.0	64.6	798.7	650.5	49.5
13500.0	627.7	3.4	-1.4	73.7	787.9	649.3	47.4
14000.0	615.0	2.1	-2.6	71.1	777.4	647.3	45.3
14500.0	606.5	0.7	-4.5	63.1	767.0	645.5	43.2
15000.0	593.2	-1.4	-3.9	77.0	755.4	644.3	41.1
15500.0	582.0	-1.3	-3.6	85.6	744.1	643.1	39.0
16000.0	571.0	-2.4	-4.3	96.7	732.4	642.0	37.0
16500.0	559.2	-3.2	-5.2	83.0	720.6	641.1	34.9
17000.0	549.2	-3.7	-5.7	79.1	709.8	540.2	31.5
17500.0	539.4	-4.0	-13.3	47.4	596.5	639.7	17.6
18000.0	525.7	-4.4	-17.4	75.7	584.6	629.0	9.7
18500.0	518.4	-5.1	-20.5	29.5	673.3	638.2	3.1
19000.0	505.2	-4.7	-21.2	25.0	559.6	579.6	2.5
19500.0	495.0	-4.4	-21.9	24.0	646.3	538.9	1.5
20000.0	495.0	-3.6	-32.5	24.0	536.4	637.5	1.1
20500.0	479.0	-6.7	-13.7	26.4	526.6	636.2	0.5
21000.0	473.0	-7.4	-26.5	24.0	517.0	634.9	0.0
21500.0	451.0	-9.0	-23.4	24.7	507.5	633.4	-2.5
22000.0	452.0	-10.1	-25.4	24.9	598.2	632.0	-5.7
22500.0	447.0	-11.1	-27.2	25.1	589.4	670.7	-9.6
23000.0	446.0	-14.4	-24.2	25.1	580.1	529.2	-15.7
23500.0	436.0	-13.5	-29.1	25.4	571.2	627.9	-11.4

STATION ALTITUDE 6551.33 FEET MSL
30 JULY 84 1211 MOT
ASCENSION NO. 37

WEATHER AIR DATA
212303Z3397
JALCEN

TABLE 15 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DE-POINT PERCENT	REL. HUM. PERCENT	DENSITY G/CUBIC METER	SPED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPED KNOTS	INDEX OF REFRACTION
24000.0	417.7	-14.6	-30.0	25.6	562.5	626.5	46.7	10.4	1.000126
24500.0	409.6	-15.0	-30.9	25.5	556.0	625.2	69.9	9.1	1.000126
25000.0	401.5	-16.9	-31.6	26.0	545.5	623.9	54.0	7.4	1.000126
25500.0	393.4	-15.3	-32.5	26.7	536.9	622.4	60.7	6.4	1.000122
26000.0	385.4	-13.1	-33.1	27.5	528.3	621.1	65.1	6.4	1.000120
26500.0	377.5	-10.2	-33.7	28.5	519.9	619.7	67.4	6.8	1.000118
27000.0	370.0	-6.1	-34.6	29.3	511.5	618.4	68.5	7.2	1.000116
27500.0	362.4	-22.4	-35.2	29.9	503.3	617.0	57.7	7.4	1.000114
28000.0	354.3	-23.5	-36.3	29.6	495.1	615.6	67.1	7.5	1.000112
28500.0	347.5	-24.7	-37.4	29.5	487.1	614.1	67.9	7.6	1.000110
29000.0	340.2	-25.9	-38.6	28.9	479.1	612.7	65.6	7.1	1.000108
29500.0	333.1	-27.0	-39.7	28.6	471.4	611.2	58.7	6.3	1.000106
30000.0	326.1	-28.2	-40.8	28.3	463.7	609.8	44.3	6.7	1.000104
30500.0	319.2	-29.4	-42.0	26.0	456.2	608.5	51.4	5.4	1.000103
31000.0	312.7	-30.5	-43.1	27.3	448.8	606.9	2.0	2.8	1.000101
31500.0	305.1	-31.7	-44.3	27.3	441.6	605.4	57.5	2.1	1.000097
32000.0	299.7	-32.9	-45.4	27.0	434.5	603.9	57.1	2.5	1.000097
32500.0	293.2	-34.1	-46.3	27.4	427.3	602.6	60.5	4.2	1.000096
33000.0	286.3	-35.3	-47.3	27.4	420.2	600.5	89.4	5.0	1.000094
33500.0	280.7	-36.5	-48.3	29.2	413.3	599.3	23.9	5.8	1.000093
34000.0	274.6	-37.6	-49.3	28.5	406.4	597.7	97.4	5.8	1.000091
34500.0	268.7	-39.0	-50.2	28.0	399.7	596.1	105.4	7.5	1.000089
35000.0	262.8	-40.2	-51.3	21.5**	392.0	594.2	112.3	5.2	1.000088
35500.0	257.0	-41.5	-52.5	11.5**	386.4	593.3	116.3	6.3	1.000086
36000.0	251.3	-42.7	-52.6	2.3**	379.9	591.4	112.7	6.3	1.000085
36500.0	245.6	-43.5	-53.5	2.7	373.2	589.9	116.4	5.8	1.000085
37000.0	240.0	-45.1	-55.1	4.0	366.1	586.3	111.3	12.0	1.000084
37500.0	234.5	-46.6	-56.3	4.0	360.1	586.8	110.4	10.6	1.000083
38000.0	229.2	-47.4	-57.4	4.7	353.7	585.3	111.6	13.4	1.000082
38500.0	223.9	-48.2	-58.3	5.3	347.5	583.8	112.4	15.4	1.000081
39000.0	218.7	-49.1	-59.2	5.3	341.1	582.2	112.1	14.7	1.000080
39500.0	213.6	-50.0	-59.1	5.3	335.1	580.7	110.1	12.0	1.000079
40000.0	208.5	-50.9	-59.0	5.3	329.4	579.1	105.4	13.4	1.000078
40500.0	203.4	-52.4	-59.5	5.3	323.0	577.6	109.1	15.4	1.000077
41000.0	198.3	-54.3	-59.5	5.3	317.9	576.0	111.4	17.4	1.000076
41500.0	193.2	-56.2	-59.5	5.3	312.1	574.4	111.2	16.1	1.000075
42000.0	188.1	-57.0	-59.5	5.3	306.4	572.2	109.5	20.4	1.000074
42500.0	183.0	-58.9	-59.5	5.3	300.9	571.2	105.9	21.1	1.000073
43000.0	178.0	-59.7	-59.5	5.3	295.6	569.5	100.6	21.2	1.000072
43500.0	173.0	-60.7	-59.5	5.3	290.0	567.9	96.3	21.1	1.000071

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION LATITUDE 40°55' 50" N.
2 JULY 66 1211 WEST
ASCENSION NO. 27

OPTIONAL DATA
S12010367
JALLES

TABLE 15 Cont'd

GEOMETRIC ALTITUDE FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	DEPOINT CENTIGRADE	REF. HUM. PERCENT	REL. HUM. PERCENT	SOUND METER	SPEED KNOTS	DIRECTION DEGREES (TN)	WIND DATA KNOTS	INDEX OF REFRACTION
44050.0	172.6	-61.5	-61.5	284.5	566.4	95.4	29.5			1.000063
44550.0	156.6	-61.7	-61.7	278.9	555.2	93.9	12.5			1.000062
45050.0	156.8	-61.6	-61.6	273.2	553.9	92.1	18.9			1.000061
45550.0	155.7	-61.6	-61.6	267.7	552.5	89.7	17.7			1.000059
46050.0	155.8	-61.5	-61.5	262.3	551.4	85.3	16.4			1.000058
46550.0	152.8	-61.5	-61.5	257.1	550.1	79.4	15.2			1.000057
47050.0	145.5	-61.5	-61.5	252.0	558.7	74.1	14.0			1.000056
47550.0	145.0	-61.6	-61.6	247.3	557.2	69.3	11.9			1.000055
48050.0	141.4	-61.7	-61.7	242.2	555.6	64.9	9.3			1.000054
48550.0	137.2	-70.3	-70.3	236.8	554.8	62.4	6.8			1.000053
49050.0	134.4	-70.4	-70.4	230.9	554.7	5.2	6.7			1.000051
49550.0	131.0	-70.5	-70.5	225.2	554.5	351.8	9.9			1.000050
50050.0	127.7	-65.2	-65.2	217.9	556.7	353.0	13.7			1.000049
50550.0	124.5	-65.6	-65.6	212.1	557.2	3.6	16.2			1.000047
51050.0	121.4	-63.5	-63.5	206.6	557.4	22.9	19.7			1.000046
51550.0	116.2	-59.1	-59.1	201.7	557.5	39.5	20.4			1.000045
52050.0	115.4	-63.0	-63.0	196.9	556.7	56.7	21.7			1.000044
52550.0	112.8	-59.5	-59.5	192.8	555.5	58.4	21.3			1.000043
53050.0	109.7	-70.7	-70.7	188.7	554.4	78.7	18.5			1.000042
53550.0	106.9	-69.7	-69.7	183.1	555.7	89.4	15.6			1.000041
54050.0	104.8	-63.7	-63.7	177.7	557.0	97.1	11.5			1.000040
54550.0	101.7	-47.7	-47.7	172.4	558.4	92.9	9.6			1.000039
55050.0	99.1	-47.1	-47.1	167.6	559.3	92.2	9.4			1.000038
55550.0	75.7	-5.6	-5.6	153.1	559.4	81.7	9.5			1.000037
56050.0	74.1	-5.6	-5.6	150.2	559.6	79.3	10.1			1.000036
56550.0	71.6	-12.6	-12.6	155.2	559.7	62.2	10.5			1.000035
57050.0	69.7	-5.6	-5.6	151.2	560.3	56.9	11.8			1.000034
57550.0	67.0	-5.6	-5.6	147.7	560.2	54.4	12.0			1.000033
58050.0	55.8	-5.6	-5.6	143.6	560.5	54.2	14.5			1.000032
58550.0	83.1	-12.6	-12.6	139.9	560.7	61.7	17.0			1.000031
59050.0	81.1	-5.6	-5.6	136.2	561.3	71.4	20.7			1.000030
59550.0	79.1	-5.6	-5.6	132.5	562.1	51.5	23.9			1.000029
60050.0	77.1	-5.6	-5.6	129.9	562.3	32.1	27.2			1.000028
60550.0	75.1	-5.6	-5.6	125.4	562.6	26.4	26.2			1.000027
61050.0	73.1	-5.6	-5.6	122.0	564.4	105.5	26.5			1.000027
61550.0	71.1	-5.6	-5.6	119.7	565.2	105.5	27.7			1.000026
62050.0	70.1	-5.6	-5.6	115.3	566.3	102.4	19.7			1.000025
62550.0	68.1	-5.6	-5.6	112.5	566.5	97.3	15.6			1.000025
63050.0	66.1	-5.6	-5.6	109.5	567.1	97.7	14.9			1.000024
63550.0	64.1	-5.6	-5.6	104.7	567.7	97.7	14.5			1.000024

STATION ALTITUDE 4751.33 FEET 451
 2 JULY 86 1211 MDT
 ASCENSION NO. 37

UPPER AIR DATA
 210000Z97
 JALTEN

TABLE 15 Cont'd

GEOMETRIC ALTITUDE *SL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT CENTIGRADE	REL.HUM. PERCENT	GW/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (IN) KNOTS	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
54000.0	53.5	-50.3			103.9	568.3	91.9	15.6	1.000023
54500.0	52.0	-59.9			101.2	568.7	91.9	17.1	1.000023
65000.0	50.5	-59.5			98.5	569.5	90.2	19.0	1.000022
65500.0	50.0	-56.6			95.8	570.5	88.6	20.8	1.000021
66000.0	57.5	-57.5			95.1	572.1	97.1	22.5	1.000021
66500.0	54.3	-56.4			90.4	573.5	86.2	23.7	1.000020
67000.0	54.9	-56.2			85.2	573.9	86.4	24.1	1.000020
67500.0	53.6	-56.0			86.0	574.1	86.4	24.5	1.000019
68000.0	52.4	-55.6			84.9	574.3	85.5	25.1	1.000019
68500.0	51.1	-55.7			81.9	574.5	84.7	25.8	1.000018
69000.0	49.9	-55.5			79.9	574.8	85.1	27.1	1.000018
69500.0	48.8	-55.4			78.3	574.9	85.4	28.3	1.000017
72000.0	47.5	-55.3			76.2	575.1	88.4	28.7	1.000017
72500.0	46.5	-55.1			74.3	575.2	91.5	29.2	1.000017
71000.0	45.4	-55.0			72.6	575.4	95.5	28.5	1.000016
71500.0	44.4	-54.9			70.8	575.5	100.1	27.4	1.000016
72000.0	43.3	-54.6			69.1	575.7			1.000015
72500.0	42.3	-54.7			67.5	575.8			1.000015
73000.0	41.3	-54.6			65.9	576.2			1.000015
73500.0	40.4	-54.4			64.3	576.2			1.000014

GEOMETRIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

STATION LATITUDE 33° 16.712' N
STATION LONGITUDE 106.49511' E
ASCENSION NO. 43.
DATE 27 JULY 64
TIME 1211 MDT

MANUFACTURER
C1000
SALIN
TABLE 16

GEODETIC COORDINATES
33°16.712 LAT DEG
106.49511 LONG DEG

PRESSURE WILLIAMS MILLIBARS	DENSITY FLUID	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEW POINT DEGREES CENTIGRADE	RELATIVE HUMID. PERCENT		DIRECTION DEGREES (TN)	SPEED KNOTS
				DATA	DATA		
980.0	0.00077	26.6	11.5	39.	159.7	5.2	
985.0	0.00079	21.5	9.5	40.	151.3	4.5	
990.0	0.00079	15.9	7.2	50.	177.2	1.5	
995.0	0.00076	11.3	2.1	52.	9.7	13.5	
1000.0	0.00071	6.7	-1.7	54.	165.4	6.2	
1005.0	0.00072	0.7	-4.3	72.	143.7	11.1	
1010.0	0.00069	-1.7	-8.1	71.	163.4	11.0	
1015.0	0.00070	-6.3	-21.8	24.	552.7	2.5	
1020.0	0.00072	-10.3	-25.6	25.	36.9	9.7	
1025.0	0.00072	-17.1	-32.0	26.	55.6	7.1	
1030.0	0.00073	-24.3	-37.5	29.	57.7	7.5	
1035.0	0.00071	-31.9	-45.3	27.	56.2	2.4	
1040.0	0.00072	-47.0			119.1	9.1	
1045.0	0.00072	-54.4			111.0	17.1	
1050.0	0.00071	-51.2			95.1	23.5	
1055.0	0.00071	-67.1			75.7	15.4	
1060.0	0.00070	-56.6			359.0	14.0	
1065.0	0.00070	-57.1			95.3	9.5	
1070.0	0.00071	-55.2			75.5	22.7	
1075.0	0.00070	-61.7			102.3	20.3	
1080.0	0.00070	54.26	-59.3	89.5			
1085.0	0.00070	55.5	-55.5	85.0	20.9		

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

TABLE 17

STATION 411051-00, CO. 1, 1944 MDT
2 JULY 1948
*NO. 44444
NO. 14444

OPEN AIR DATA
1944-1948
JALLEN

GEODETIC COORDINATES
31°16'7.12 LAT
106°49'51.1 LON DEG

TABLE 18

STATION	PRESSURE ALTITUDE MSL FLEET	TEMPERATURE AIR VS POINT WIND DRAWS	REL. HUM. FRACTION WATER	DENSITY G/M CUBIC WATER	SPEED OF SOUND METERS	DIRECTION DEGREES (IN) WIND	INDEX OF REFRACTION	INDEX DATA WIND	SPEED OF WIND METERS	KNOTS	REFRACTION
4051-0	678.4	35.2	11.1	25.0	391.2	663.5	210.7	9.7	1.000275		
4520-0	655.1	35.2	10.5	29.6	387.9	680.4	252.7	8.7	1.000273		
5000-0	650.4	28.9	10.5	31.9	375.2	679.3	191.7	6.6	1.000270		
5500-0	635.2	27.4	9.9	33.6	363.5	677.2	125.1	5.4	1.000266		
6000-0	621.0	25.7	9.2	34.8	352.0	675.5	152.4	5.1	1.000261		
6500-0	607.1	24.3	8.4	36.2	347.7	673.7	160.2	5.4	1.000257		
7000-0	722.3	22.6	7.6	37.6	329.5	671.9	129.7	7.0	1.000252		
7500-0	772.4	21.3	6.8	39.0	918.3	670.1	127.5	7.7	1.000248		
8000-0	772.4	19.8	6.4	41.5	906.5	668.4	120.5	5.0	1.000244		
8500-0	754.5	18.4	5.6	44.0	894.9	666.3	124.7	4.5	1.000241		
9000-0	739.2	17.0	5.4	46.4	883.5	665.1	126.5	5.1	1.000237		
9500-0	725.2	15.9	4.9	49.7	872.3	653.6	115.7	4.5	1.000234		
10000-0	717.2	14.7	4.2	51.4	861.2	651.7	105.7	4.0	1.000230		
10500-0	703.7	12.7	3.6	53.9	850.4	660.1	97.0	3.6	1.000226		
11000-0	685.3	11.3	2.9	55.6	839.1	656.4	88.5	3.3	1.000224		
11500-0	675.5	10.7	1.9	57.4	828.0	656.7	79.1	3.0	1.000221		
12000-0	655.2	9.5	1.0	59.1	817.1	655.1	120.4	5.1	1.000213		
12500-0	651.2	7.4	0.1	60.3	806.4	653.6	146.5	1.3	1.000209		
13000-0	639.7	5.6	-0.6	62.5	795.9	551.3	166.6	4.1	1.000205		
13500-0	627.8	4.5	-1.1	63.6	784.7	550.2	179.0	4.5	1.000202		
14000-0	615.8	3.2	-1.2	72.1	777.7	648.7	183.6	5.5	1.000200		
14500-0	604.4	1.9	-1.5	77.4	752.9	547.2	126.2	5.4	1.000197		
15000-0	592.4	0.6	-2.3	82.3	752.0	545.7	161.2	5.4	1.000194		
15500-0	582.4	-0.7	-2.4	87.2	741.7	644.5	141.5	5.0	1.000191		
16000-0	571.1	-1.2	-3.1	92.2	729.1	543.5	130.7	5.4	1.000188		
16500-0	560.4	-1.6	-3.8	73.4	717.3	642.5	121.4	5.0	1.000186		
17000-0	549.7	-2.8	-12.9	53.3	707.2	641.1	122.1	5.6	1.000181		
17500-0	537.8	-3.7	-14.2	43.4	696.1	640.3	126.0	4.2	1.000180		
18000-0	525.3	-4.4	-15.9	17.1	684.8	519.0	106.6	2.2	1.000179		
18500-0	518.8	-5.4	-19.8	5.7	577.7	615.1	75.0	2.4	1.000178		
19000-0	510.9	-6.4	-21.4	-1.1	512.7	517.4	58.7	5.2	1.000177		
19500-0	501.4	-7.5	-21.8	22.0	607.7	517.4	51.7	7.7	1.000176		
20000-0	492.1	-8.7	-21.7	27.0	449.8	517.4	51.7	7.7	1.000175		
20500-0	482.4	-9.7	-22.5	37.0	527.4	636.4	46.8	8.6	1.000174		
21000-0	473.0	-10.7	-23.2	27.0	522.1	619.0	45.7	7.7	1.000173		
21500-0	463.7	-11.5	-24.1	27.0	514.9	634.0	44.0	9.3	1.000172		
22000-0	454.7	-12.4	-24.9	27.0	607.1	632.7	44.1	8.7	1.000171		
22500-0	445.7	-13.2	-25.6	27.0	529.4	531.4	42.3	8.8	1.000170		
23000-0	436.7	-14.1	-26.3	27.0	589.5	510.8	32.5	9.1	1.000169		
23500-0	427.7	-15.0	-27.0	27.0	579.7	629.2	34.2	8.9	1.000168		
24000-0	418.7	-15.9	-27.0	27.0	570.9	629.4	34.2	8.9	1.000167		
24500-0	409.7	-16.7	-25.1	27.0	570.9	629.4	34.2	8.9	1.000166		

URBIS AIR BASE
CIVILIAN
JAILIN
STATION ALTITUDE 6751.00 FEET MSL
3 JULY 56 1644 MDT
ASCENSION NO. 2

TABLE 18 Cont'd

GEOMETRIC PRESSURE	PRESSURE	TEMPERATURE	AIR MASS	REL. HUM.	DENSITY	SPEED OF SOUND	WIND DATA	INDEX OF REFRACTION	
ALITUDE MSL FEET	WILLIAMS DEGREES CENTIGRADE	PERCENT	PERCENT	PERCENT	GR/CMIC	KNOTS	DIRECTION DEGREES (LIN)	SPEED KNOTS	
24530.0	419.0	-16.4	-26.2	27.0	562.4	626.8	48.1	1.000126	
24530.0	409.1	-15.7	-25.3	27.0	554.3	625.3	42.4	1.000126	
25030.0	401.5	-17.0	-24.9	27.0	545.7	623.7	39.1	1.000124	
25530.0	392.2	-15.1	-23.5	27.1	537.1	622.2	61.5	1.000124	
26030.0	375.1	-19.2	-23.4	27.1	525.3	620.3	44.4	1.000120	
26530.0	377.2	-20.4	-24.4	27.1	519.7	619.4	47.4	1.000118	
27030.0	356.4	-21.6	-25.4	27.1	511.1	615.0	51.0	1.000116	
27530.0	351.7	-22.7	-26.4	27.1	503.4	616.5	50.7	1.000114	
28030.0	355.2	-23.8	-27.4	27.1	494.9	615.2	56.4	1.0	1.000114
28530.0	365.8	-25.0	-28.5	27.1	486.9	613.7	54.6	1.0	1.000113
29030.0	369.5	-26.2	-29.7	27.0	479.1	612.3	52.8	2.0	1.000113
29530.0	352.7	-27.3	-30.8	27.0	471.4	610.9	52.0	1.0	1.000112
30030.0	347.5	-28.5	-31.7	27.0	463.5	609.5	52.2	5.0	1.000112
30530.0	342.7	-29.6	-32.6	27.0	456.4	608.3	61.4	6.0	1.000112
31030.0	348.0	-30.8	-33.7	27.0	449.1	606.6	58.4	1.8	1.000111
31530.0	341.9	-31.9	-34.8	27.0	441.9	605.1	59.4	2.0	1.000110
32030.0	337.2	-33.0	-35.9	27.0	434.8	603.7	54.0	1.0	1.000110
32530.0	332.5	-34.1	-37.0	27.0	427.5	602.2	51.5	1.0	1.000109
33030.0	328.0	-35.2	-38.1	27.0	420.2	600.7	54.0	1.0	1.000109
33530.0	324.6	-36.3	-39.2	27.0	413.0	599.2	56.0	1.0	1.000109
34030.0	321.4	-37.4	-40.3	27.0	405.8	597.7	58.0	1.0	1.000109
34530.0	318.3	-38.5	-41.4	27.0	398.6	596.2	59.0	1.0	1.000109
35030.0	315.2	-39.6	-42.5	27.0	391.4	594.7	57.1	1.0	1.000109
35530.0	312.2	-40.7	-43.6	27.0	384.2	593.2	54.4	1.0	1.000109
36030.0	309.2	-41.8	-44.7	27.0	377.0	591.7	52.7	1.0	1.000109
36530.0	306.2	-42.9	-45.8	27.0	372.8	590.2	50.0	1.0	1.000109
37030.0	303.2	-44.0	-46.9	27.0	365.7	587.7	48.3	1.0	1.000109
37530.0	300.2	-45.1	-48.0	27.0	359.5	587.2	46.6	1.0	1.000109
38030.0	297.2	-46.2	-49.1	27.0	352.3	585.7	44.9	1.0	1.000109
38530.0	294.2	-47.3	-50.2	27.0	345.1	584.2	43.2	1.0	1.000109
39030.0	291.2	-48.4	-51.3	27.0	337.9	582.7	41.5	1.0	1.000109
39530.0	288.2	-49.5	-52.4	27.0	330.7	581.2	39.8	1.0	1.000109
40030.0	285.2	-50.6	-53.5	27.0	323.5	579.7	38.1	1.0	1.000109
40530.0	282.2	-51.7	-54.6	27.0	316.3	578.2	36.4	1.0	1.000109
41030.0	279.2	-52.8	-55.7	27.0	309.1	576.7	34.7	1.0	1.000109
41530.0	276.2	-53.9	-56.8	27.0	301.9	575.2	33.0	1.0	1.000109
42030.0	273.2	-55.0	-57.9	27.0	294.7	573.7	31.3	1.0	1.000109
42530.0	270.2	-56.1	-59.0	27.0	287.5	572.2	29.6	1.0	1.000109
43030.0	267.2	-57.2	-60.1	27.0	280.3	570.7	27.9	1.0	1.000109
43530.0	264.2	-58.3	-61.2	27.0	273.1	569.2	26.2	1.0	1.000109
44030.0	261.2	-59.4	-62.3	27.0	265.9	567.7	24.5	1.0	1.000109
44530.0	258.2	-60.5	-63.4	27.0	258.7	566.2	22.8	1.0	1.000109
45030.0	255.2	-61.6	-64.5	27.0	251.5	564.7	21.1	1.0	1.000109
45530.0	252.2	-62.7	-65.6	27.0	244.3	563.2	19.4	1.0	1.000109
46030.0	249.2	-63.8	-66.7	27.0	237.1	561.7	17.7	1.0	1.000109
46530.0	246.2	-64.9	-67.8	27.0	229.9	560.2	16.0	1.0	1.000109
47030.0	243.2	-66.0	-68.9	27.0	222.7	558.7	14.3	1.0	1.000109
47530.0	240.2	-67.1	-69.9	27.0	215.5	557.2	12.6	1.0	1.000109
48030.0	237.2	-68.2	-71.0	27.0	208.3	555.7	10.9	1.0	1.000109
48530.0	234.2	-69.3	-72.1	27.0	201.1	554.2	9.2	1.0	1.000109
49030.0	231.2	-70.4	-73.2	27.0	193.9	552.7	7.5	1.0	1.000109
49530.0	228.2	-71.5	-74.3	27.0	186.7	551.2	5.8	1.0	1.000109
50030.0	225.2	-72.6	-75.4	27.0	179.5	549.7	4.1	1.0	1.000109
50530.0	222.2	-73.7	-76.5	27.0	172.3	548.2	2.4	1.0	1.000109
51030.0	219.2	-74.8	-77.6	27.0	165.1	546.7	0.7	1.0	1.000109
51530.0	216.2	-75.9	-78.7	27.0	157.9	545.2	-1.0	1.0	1.000109
52030.0	213.2	-77.0	-79.8	27.0	150.7	543.7	-2.7	1.0	1.000109
52530.0	210.2	-78.1	-80.9	27.0	143.5	542.2	-4.4	1.0	1.000109
53030.0	207.2	-79.2	-82.0	27.0	136.3	540.7	-6.1	1.0	1.000109
53530.0	204.2	-80.3	-83.1	27.0	129.1	539.2	-7.8	1.0	1.000109
54030.0	201.2	-81.4	-84.2	27.0	121.9	537.7	-9.5	1.0	1.000109
54530.0	198.2	-82.5	-85.3	27.0	114.7	536.2	-11.2	1.0	1.000109
55030.0	195.2	-83.6	-86.4	27.0	107.5	534.7	-12.9	1.0	1.000109
55530.0	192.2	-84.7	-87.5	27.0	100.3	533.2	-14.6	1.0	1.000109
56030.0	189.2	-85.8	-88.6	27.0	93.1	531.7	-16.3	1.0	1.000109
56530.0	186.2	-86.9	-89.7	27.0	85.9	530.2	-18.0	1.0	1.000109
57030.0	183.2	-88.0	-90.8	27.0	78.7	528.7	-19.7	1.0	1.000109
57530.0	180.2	-89.1	-91.9	27.0	71.5	527.2	-21.4	1.0	1.000109
58030.0	177.2	-90.2	-93.0	27.0	64.3	525.7	-23.1	1.0	1.000109
58530.0	174.2	-91.3	-94.1	27.0	57.1	524.2	-24.8	1.0	1.000109
59030.0	171.2	-92.4	-95.2	27.0	50.0	522.7	-26.5	1.0	1.000109
59530.0	168.2	-93.5	-96.3	27.0	42.8	521.2	-28.2	1.0	1.000109
60030.0	165.2	-94.6	-97.4	27.0	35.6	519.7	-29.9	1.0	1.000109
60530.0	162.2	-95.7	-98.5	27.0	28.4	518.2	-31.6	1.0	1.000109
61030.0	159.2	-96.8	-99.6	27.0	21.2	516.7	-33.3	1.0	1.000109
61530.0	156.2	-97.9	-100.7	27.0	14.0	515.2	-35.0	1.0	1.000109
62030.0	153.2	-99.0	-101.8	27.0	7.8	513.7	-36.7	1.0	1.000109
62530.0	150.2	-100.1	-102.9	27.0	0.6	512.2	-38.4	1.0	1.000109
63030.0	147.2	-101.2	-104.0	27.0	-6.1	510.7	-40.1	1.0	1.000109
63530.0	144.2	-102.3	-105.1	27.0	-13.3	509.2	-41.8	1.0	1.000109
64030.0	141.2	-103.4	-106.2	27.0	-20.5	507.7	-43.5	1.0	1.000109
64530.0	138.2	-104.5	-107.3	27.0	-27.7	506.2	-45.2	1.0	1.000109
65030.0	135.2	-105.6	-108.4	27.0	-34.9	504.7	-46.9	1.0	1.000109
65530.0	132.2	-106.7	-109.5	27.0	-42.1	503.2	-48.6	1.0	1.000109
66030.0	129.2	-107.8	-110.6	27.0	-49.3	501.7	-50.3	1.0	1.000109
66530.0	126.2	-108.9	-111.7	27.0	-56.5	500.2	-52.0	1.0	1.000109
67030.0	123.2	-109.0	-112.8	27.0	-63.7	498.7	-53.7	1.0	1.000109
67530.0	120.2	-109.1	-113.9	27.0	-70.9	497.2	-55.4	1.0	1.000109
68030.0	117.2	-109.2	-115.0	27.0	-78.1	495.7	-57.1	1.0	1.000109
68530.0	114.2	-109.3	-116.1	27.0	-85.3	494.2	-58.8	1.0	1.000109
69030.0	111.2	-109.4	-117.2	27.0	-92.5	492.7	-60.5	1.0	1.000109
69530.0	108.2	-109.5	-118.3	27.0	-99.7	491.2	-62.2	1.0	1.000109
70030.0	105.2	-109.6	-119.4	27.0	-106.9	489.7	-63.9	1.0	1.000109
70530.0	102.2	-109.7	-120.5	27.0	-114.1	488.2	-65.6	1.0	1.000109
71030.0	99.2	-109.8	-121.6	27.0	-121.3	486.7	-67.3	1.0	1.000109
71530.0	96.2	-109.9	-122.7	27.0	-128.5	485.2	-69.0	1.0	1.000109
72030.0	93.2	-110.0	-123.8	27.0	-135.7	483.7	-70.7	1.0	1.000109
72530.0	90.2	-110.1	-124.9	27.0	-142.9	482.2	-72.4	1.0	1.000109
73030.0	87.2	-110.2	-126.0	27.0	-150.1	480.7	-74.1	1.0	1.000109
73530.0	84.2	-110.3	-127.1	27.0	-157.3	479.2	-75.8	1.0	1.000109
74030.0	81.2	-110.4	-128.2	27.0	-164.5	477.7	-77.5	1.0	1.000109
74530.0	78.2	-110.5	-129.3	27.0	-171.7	476.2	-79.2	1.0	1.000109
75030.0	75.2	-110.6	-130.4	27.0	-178.9	474.7	-80.9	1.0	1.000109
75530.0	72.2	-110.7	-131.5	27.0	-186.1	473			

STATION ALTITUDE 4551.30 FEET MSL
30 JULY 54 1444 MDT
ASCENSION NO. 96

UPPER AIR DATA
212033Z98
JALLEN

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE 18 Cont'd

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES	AIR DEWPPOINT CENTIGRADE	REL.HUM. PERCENT	G/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	INDEX OF REFRACTION	
								INDEX OF REFRACTION	REFRACTION
44000.0	172.6	-62.2			285.0	565.8	78.3	16.8	1.000063
44500.0	159.6	-53.2			279.4	564.5	77.0	15.8	1.000062
45000.0	156.2	-56.0			273.8	563.2	74.8	15.9	1.000061
45500.0	150.2	-55.1			258.3	561.7	72.1	12.0	1.000060
46000.0	156.3	-56.1			262.9	560.6	69.1	9.5	1.000059
46500.0	152.4	-57.0			257.6	559.4	62.6	6.9	1.000057
47000.0	149.7	-67.7			252.1	558.4	26.6	4.5	1.000056
47500.0	145.0	-58.0			246.2	558.3	336.5	5.3	1.000055
48000.0	141.3	-58.2			240.4	557.5	333.2	8.0	1.000054
48500.0	137.8	-68.6			234.7	557.2	331.8	10.6	1.000052
49000.0	134.6	-68.6			228.7	557.4	348.3	12.3	1.000051
49500.0	131.0	-65.1			222.6	557.9	4.9	14.9	1.000050
50000.0	127.6	-58.2			217.1	557.8	19.0	17.7	1.000048
50500.0	124.5	-69.2			212.8	556.2	31.3	23.9	1.000047
51000.0	121.4	-70.3			208.5	554.3	40.1	22.6	1.000046
51500.0	118.4	-71.4			204.3	553.4	49.5	19.8	1.000046
52000.0	115.4	-71.4			199.2	553.4	61.1	17.6	1.000044
52500.0	112.5	-71.1			193.9	553.8	71.7	14.4	1.000043
53000.0	109.6	-70.6			168.6	554.4	67.3	11.9	1.000042
53500.0	106.9	-69.8			182.1	555.5	38.4	11.6	1.000041
54000.0	104.2	-69.0			177.8	556.7	86.7	11.4	1.000040
54500.0	101.6	-55.1			172.6	557.5	82.4	11.5	1.000038
55000.0	99.1	-57.5			167.8	558.7	78.2	11.8	1.000037
55500.0	96.5	-67.3			163.6	559.7	71.7	12.5	1.000036
56000.0	94.2	-67.0			159.2	559.4	66.1	12.4	1.000035
56500.0	91.9	-65.7			155.1	559.7	61.7	14.1	1.000035
57000.0	89.5	-56.5			151.1	560.3	57.3	14.8	1.000034
57500.0	87.4	-55.2			167.2	560.4	56.1	15.1	1.000033
58000.0	85.2	-56.0			163.3	560.7	54.7	17.4	1.000032
58500.0	83.1	-55.7			139.6	551.1	52.5	18.2	1.000031
59000.0	81.1	-55.5			136.0	561.4	71.5	19.3	1.000030
59500.0	79.1	-55.2			132.5	561.8	52.1	18.8	1.000030
60000.0	77.2	-54.5			128.9	562.7	94.5	13.2	1.000029
60500.0	75.3	-52.8			125.3	563.5	102.1	17.0	1.000028
61000.0	73.4	-53.1			121.8	564.5	104.3	14.3	1.000027
61500.0	71.7	-52.6			118.6	565.6	106.2	12.0	1.000026
62000.0	69.9	-51.7			115.2	566.5	97.7	11.3	1.000026
62500.0	68.2	-51.6			112.2	567.3	88.4	13.9	1.000025
63000.0	66.5	-51.3			109.4	567.4	91.6	12.1	1.000024
63500.0	65.0	-50.7			106.6	567.2	106.6	11.5	1.000024

STATION ALTITUDE 4351.00 FEET
10 JULY 64 1444 MPN
ASCENSION NO. 75

UNITS AIR DATA
MACH NUMBER
JULY 64

CRDITIC COORDINATES
N 16712 LAT DEC
126.44511 LON DEC

GEOMETRY PRESSURE
ALTITUDE ALTITUDE
MILLIBARS DEGREES CENTIGRADE
MILLIBARS DEGREES CENTIGRADE

46000 57.0 76.0 4 102.5 568.3 92.4 15.9
46500 57.0 76.0 4 101.3 568.7 93.4 19.0
45000 56.6 75.6 4 96.7 569.1 92.7 21.9
55500 56.7 75.7 4 96.2 569.5 92.8 24.3
44000 56.1 75.1 4 93.9 570.0 93.3 26.8
46500 56.0 75.0 4 91.4 570.4 94.8 27.2
42000 56.4 75.4 4 99.1 570.5 96.4 27.2
47500 52.1 71.5 4 56.9 571.3 96.2 27.0
48000 52.0 71.5 4 54.5 571.7 95.1 26.4
48500 52.1 71.5 4 52.5 572.1 95.6 25.9
67500 58.4 75.2 4 60.4 572.5 97.0 25.9
68500 60.0 76.0 4 68.4 572.9 84.4 25.0
72000 67.0 83.0 4 76.5 573.2 85.0 25.7
72500 69.0 86.0 4 74.5 573.5 86.5 25.5
71000 65.0 81.0 4 72.7 573.9 89.1 25.1
71500 64.0 80.0 4 70.9 574.2 90.1 25.1
72300 63.0 80.0 4 69.2 574.6 91.5 26.4
72500 63.0 80.0 4 67.5 574.9 92.8 26.8
72000 63.0 81.0 4 66.0 575.2 93.5 26.8
72500 63.0 81.0 4 64.4 575.9 94.2 26.8
74000 63.0 81.0 4 62.1 575.5 95.1 26.8
74500 63.0 81.0 4 60.7 575.2 96.0 26.8

TABLE 18 Cont'd

GEOMETRY PRESSURE
ALTITUDE ALTITUDE
MILLIBARS DEGREES CENTIGRADE
MILLIBARS DEGREES CENTIGRADE

102.5 568.3 92.4 15.9
101.3 568.7 93.4 19.0
96.7 569.1 92.7 21.9
96.2 569.5 92.8 24.3
93.9 570.0 93.3 26.8
91.4 570.4 94.8 27.2
99.1 570.5 96.4 27.2
56.9 571.3 96.2 27.0
54.5 571.7 95.1 26.4
52.5 572.1 95.6 25.9
60.4 572.5 97.0 25.9
68.4 572.9 84.4 25.0
76.5 573.2 85.0 25.7
74.5 573.5 86.5 25.5
72.7 573.9 89.1 25.1
70.9 574.2 90.1 25.1
69.2 574.6 91.5 26.4
67.5 574.9 92.8 26.8
66.0 575.2 93.5 26.8
64.4 575.9 94.2 26.8
62.1 575.5 95.1 26.8
60.7 575.2 96.0 26.8

102.5 568.3 92.4 15.9
101.3 568.7 93.4 19.0
96.7 569.1 92.7 21.9
96.2 569.5 92.8 24.3
93.9 570.0 93.3 26.8
91.4 570.4 94.8 27.2
99.1 570.5 96.4 27.2
56.9 571.3 96.2 27.0
54.5 571.7 95.1 26.4
52.5 572.1 95.6 25.9
60.4 572.5 97.0 25.9
68.4 572.9 84.4 25.0
76.5 573.2 85.0 25.7
74.5 573.5 86.5 25.5
72.7 573.9 89.1 25.1
70.9 574.2 90.1 25.1
69.2 574.6 91.5 26.4
67.5 574.9 92.8 26.8
66.0 575.2 93.5 26.8
64.4 575.9 94.2 26.8
62.1 575.5 95.1 26.8
60.7 575.2 96.0 26.8

STATION 19: LATITUDE 45° 45' 51", LONGITUDE 106° 01' 06",
ASCEPTED, 1951

WEATHER DATA
1951

GEODETIC COORDINATES
35° 45' 51" LAT 106° 01' 06" LONG

TABLE 19

RELATIVE HUMIDITY	TEMPERATURE AIR DEGREES (FAHRENHEIT)	TEMPERATURE DEWPOINT DEGREES (FAHRENHEIT)	RELATIVE HUMIDITY PERCENT	DIRECTION DEGREES (CIN)	WIND SPEED KNOTS
100.0	28.9	10.6	32.0	190.4	6.6
72.5	23.5	8.0	37.0	133.7	6.1
78.2	16.1	5.9	44.0	126.0	4.5
91.2	12.6	3.6	54.0	97.0	3.0
81.2	7.9	0.0	61.0	166.0	2.2
16.5	1.4	-1.5	79.0	175.0	5.4
12.5	-1.8	-10.8	54.0	122.0	5.5
12.6	-5.7	-21.7	27.0	52.4	7.4
26.1	-10.5	-25.8	27.0	47.7	8.3
25.5	-17.2	-31.7	22.0	39.5	6.6
25.5	-24.5	-37.9	27.0	2.1	1.7
23.5	-15.0	-45.2	26.0	26.5	5.4
31.1	-5.0	-40.9	77.0	6.7	1.7
38.2	-54.0	-54.0	82.0	15.0	1.2
43.9	-61.5	-61.5	86.0	4.0	1.2
42.1	-67.6	-67.6	44.0	2.0	1.2
46.6	-73.8	-73.8	29.0	1.0	1.2
42.0	-59.1	-59.1	50.0	1.0	1.2
15.0	-57.6	-57.6	75.0	15.0	1.2
5.0	-55.7	-55.7	75.0	15.0	1.2
7.0	-61.7	-61.7	29.0	11.0	1.2
27.0	-59.6	-59.6	36.0	21.0	1.2
30.0	-57.0	-57.0	37.0	25.0	1.2
35.0	-4.0	-4.0	100.0	0.0	0.0
46.0	-7.0	-7.0	100.0	0.0	0.0
72.0	-25.0	-25.0	100.0	0.0	0.0

** AT 100% RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

END

SEARCHED

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